

Hedegård – a rich village and cemetery complex of the Early Iron Age on the Skjern river

An interim report

by *Orla Madsen*

INTRODUCTION

The Hedegård complex in the parish of Ejstrup in eastern Mid-Jutland is one of the many archaeological sites that were discovered in advance of the construction of Denmark's natural gas network. The site was found during survey work in the summer of 1986, and that part of it which was directly affected by the

engineering work was excavated. This involved a strip 450 m long and about 8 m wide running more or less north-south through the complex. The investigation showed that the site comprised a large village of the late pre-Roman and Early Roman Iron Age enclosed by a fence, with a group of contemporary graves to

Fig. 1. The Hedegård complex and known Bronze Age and Iron Age sites in the surrounding area. Drawing Ina Holst.

Solid circle - burial mound

- 1 The Hedegård village from the late Pre-Roman Iron Age/ early Roman Iron Age.
- 2 The Hedegård cemetery from the late Pre-Roman and early Roman Iron Age.
- 3 Settlement from the early and late Germanic Iron Age. Extends over 2.
- 4 The Storhøj/Rønslunde find.
- 5 Inhumation grave from the late Roman Iron Age
- 6 Cemetery with small burial mounds from the Pre-Roman Iron Age period I.
- 7 Cemetery from the late Bronze Age period IV.
- 8 Pithouses from the late Iron Age/ Viking Age.

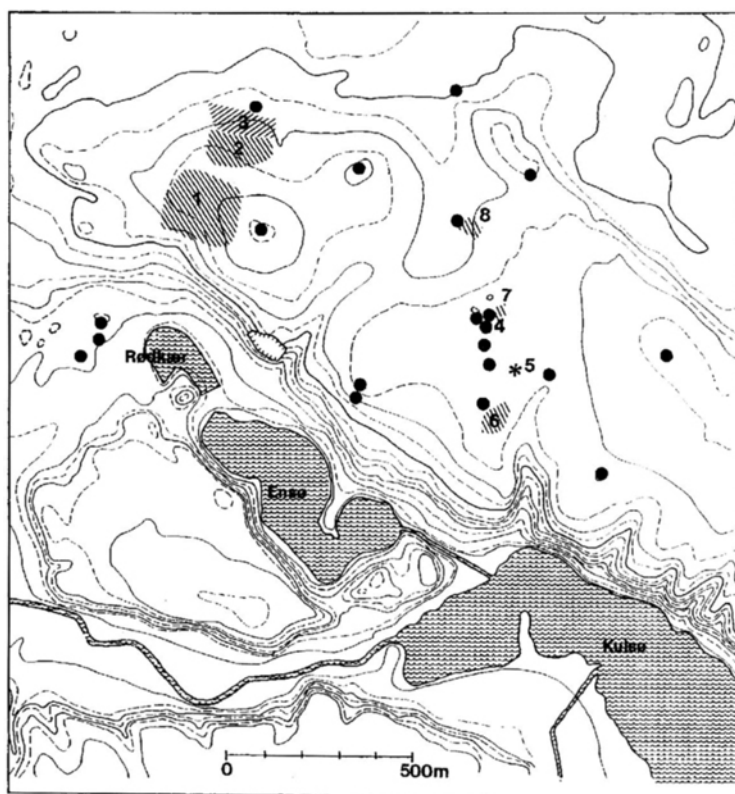




Fig. 2. Section through the thick culture layers in the centre of the village area.

the north, several of which were richly furnished (Madsen 1986; 1987).

The investigations continued with funding from Rigsantikvaren and Horsens historiske Museum (j.nr. HOM 151). In 1987 trial trenches were dug in both the village and the cemetery area with a view to establishing something of the extent of the complex, its state of preservation and its archaeological potential. The excavations showed that the cemetery was under particular threat, and that the whole site, to judge by the size and structure of the village and the rich associated burials, would probably be able to contribute important new information about social and settlement structures around the beginning of the Christian era.

From 1989 onwards the excavations therefore proceeded by means of regular area stripping, initially with a view to the complete excavation of the cemetery, which was under severe threat from cultivation. This work was completed in 1993, since when the large quantity of finds have been under conservation and processing with a view to a final publication of the whole cemetery. This, therefore, is an interim report.

TOPOGRAPHY

The Hedegård complex is situated on a relatively high and slightly undulating plateau which is sharply delimited to the south by a steep bank running down to a relatively broad part of the Skjern river valley. Here lie the lakes Ensø and the somewhat overgrown Rødkær as relicts of a presumably once much richer system of rivers and lakes. The Skjern river now runs about a kilometre to the south of the village, but it appears that in dry summers an earlier river course can be discerned immediately below the village site. To the east, west and north the terrain falls gradually to flatter and slightly lower-lying areas. The composition of the natural soil varies from gravel over fine sand to sandy clay.

THE VILLAGE

At the highest point of the plateau, at its southern end, lies the village (Fig. 1). The remains of the village take the form of post holes, fences and pits run-



Fig. 3. The southern section of the fence enclosing the village.

ning over an area of at least 180 m x 200 m which was apparently enclosed on all sides by a massive, post-set fence. During the trial excavation of 1987 an attempt was made to follow the fence right round the village by means of extended trenches. This proved impossible, however, and it was in fact necessary to use the last building plots discovered to define the limits of the village. Its extent to the east and west is therefore uncertain.

To the north, the village is bounded by two fences.

The fence furthest north is the stoutest, with a trench 70-80 cm wide and 87 cm deep. In the middle of the trench are traces of vertical, closely spaced posts, each 22 cm in diameter. The other fence trench is only 30 cm wide and 50 cm deep. In the middle of this trench are the remains of posts 20 cm in diameter. These two fences can hardly have been contemporary. Behind the fences there is a large number of post holes from buildings and other large structures, plus a number of pits.

While the northern part of the village area is found immediately underneath the ploughsoil, some sections of the central and southern zones are covered by culture layers up to a metre thick and rich in finds (Fig. 2). These layers, which contain large quantities of slag and pottery, were deposited during the period of occupation. This shows that the village had at least two phases: an earlier phase beneath the layers and a later phase which cut into them.

The southern fence of the village is situated near the steep bank facing Rødkær and the Skjern valley (Fig. 3). Its trench is from 0.7 to 1.2 m wide. During the excavations of 1986 and 1987 the posts within the fence were difficult to distinguish in several places both on the surface and in section. In a long section, however, there were clear traces of closely spaced posts, each 20 cm in diameter and set 60-70 cm deep in the ground (Fig. 4). In the lower, relatively narrow

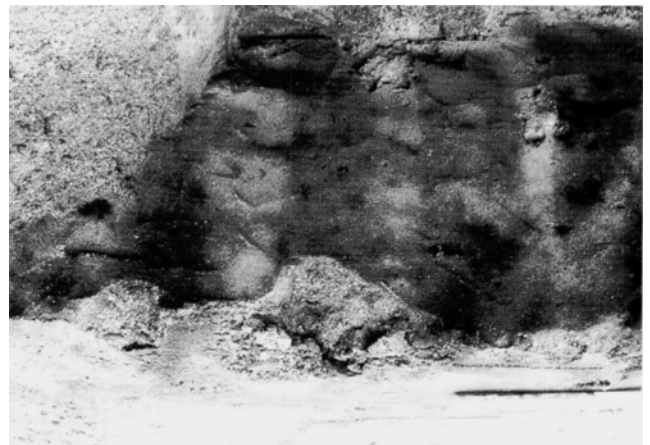


Fig. 4. Longitudinal section through the southern fence.

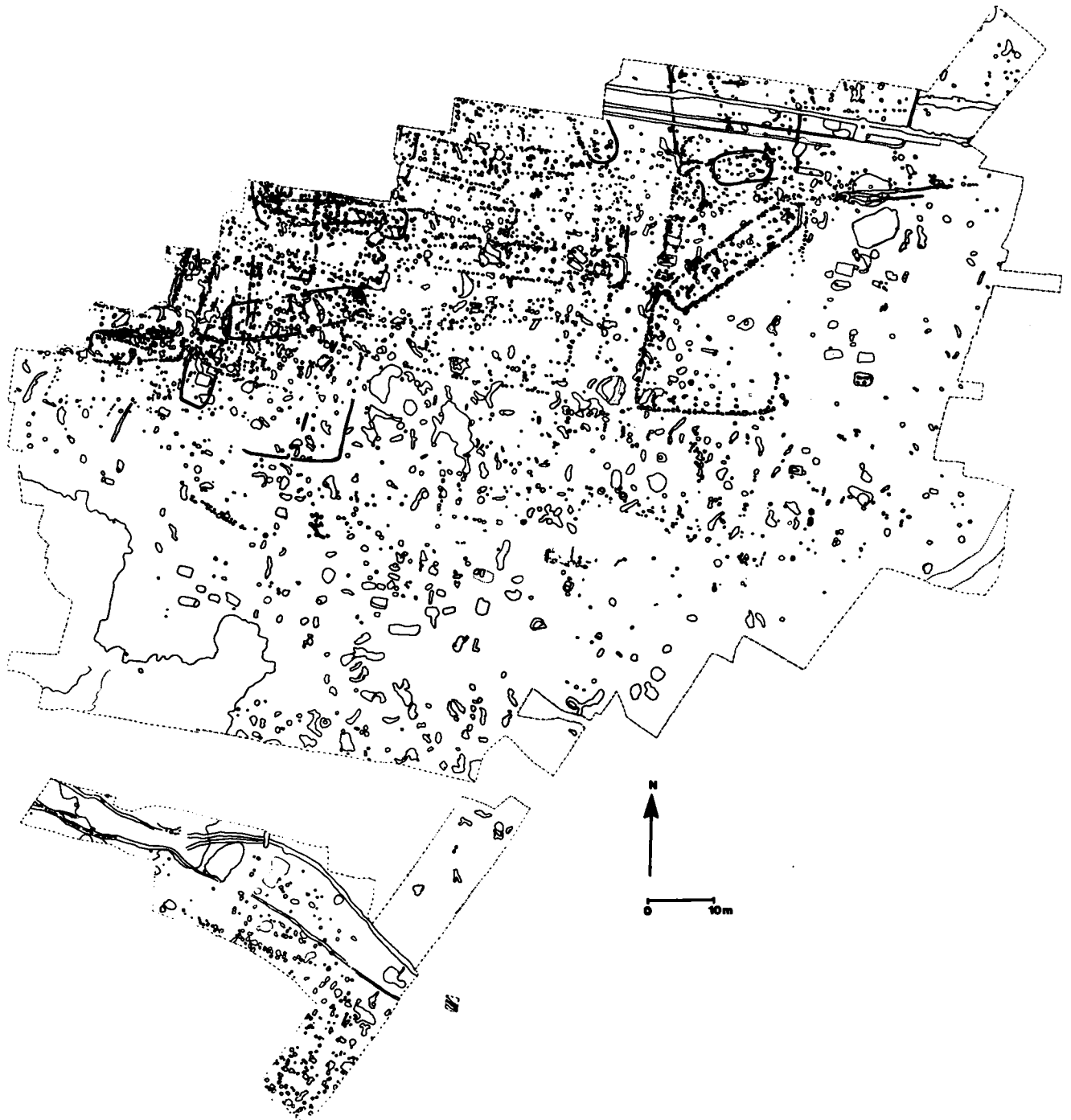


Fig. 5. All the features in the fully excavated cemetery. The many postholes form fences and houses from several phases of a village from the early and late Germanic Iron Age. Furthest to the south, two fences from the settlement contemporary with the cemetery can be seen, and behind these are the postholes and other features from the settlement. Drawing Ina Holst.

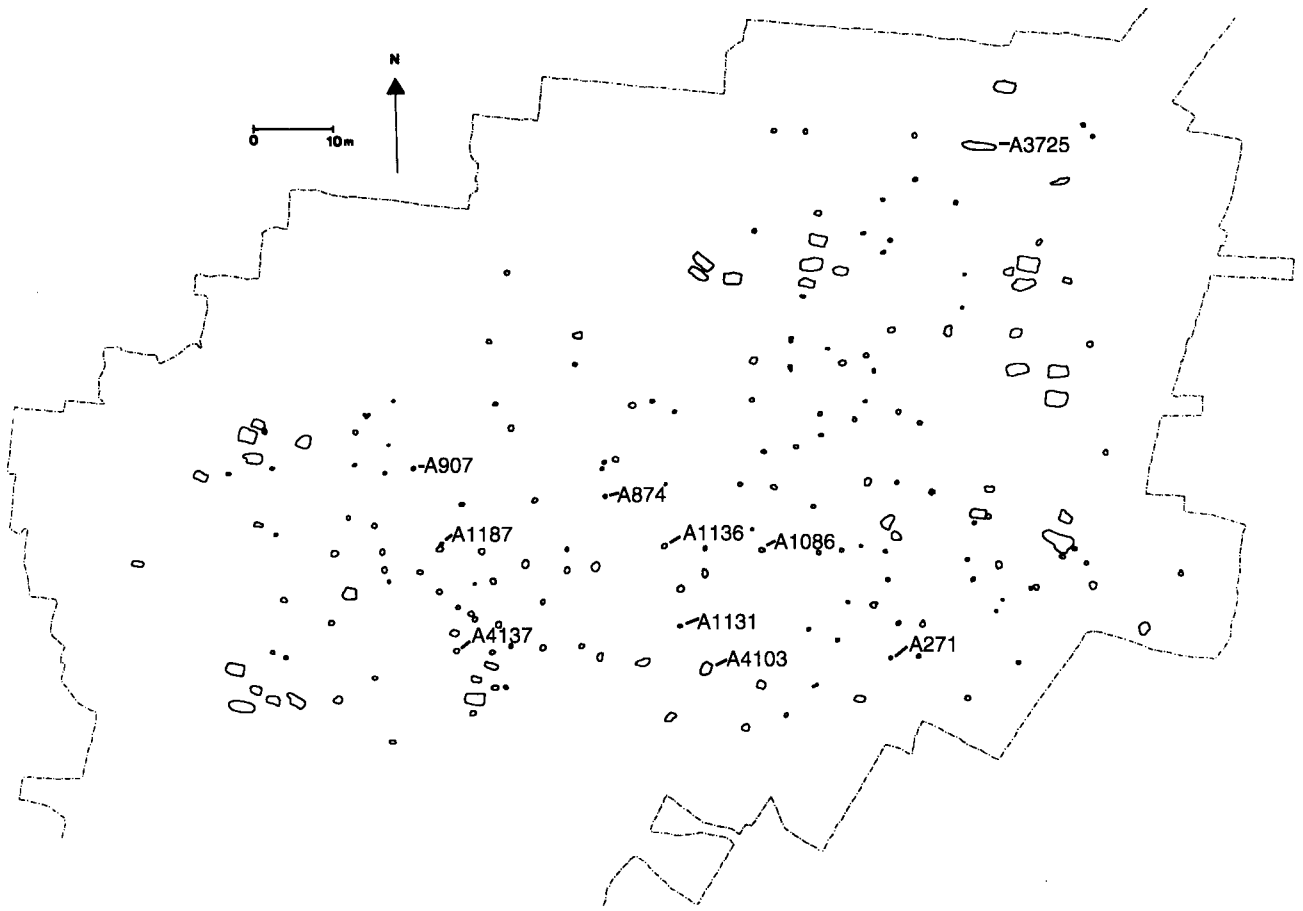


Fig. 6. All the datable graves and grave-related features from the late Pre-Roman and early Roman Iron Ages. Drawing Ina Holst.

area that runs diagonally across the southern part of the village the fence is missing. There appears to have been quite a wide opening here where either the fence did not continue or it was not dug into the ground.

In the middle of the village area beneath the thick culture layers were found two parallel ditches with layers of water-deposited sand and clay (Madsen 1986, 21). These ditches may be directed towards the opening in the fence and thus have served as a drainage system for part of the area. The thick culture layers which may have been used more or less deliberately to regulate the ground level make it very difficult to get an idea of the original ground surface).

In constructional terms, the northernmost fence and the southern one could well be contemporary.

More excavation will be needed, however, before this can be proved. There are also settlement remains in the form of post holes and pits behind the southern fence, in many places covered by culture layers 30-40 cm thick.

In 1987, Olfert Voss excavated a well-preserved iron-smelting furnace of the Skovmark type 16 m south of the southern fence (Voss 1989). Whether or not this furnace was an isolated feature is not known, but a plateau south-east of the village fence may have served as a work area for, *inter alia*, iron extraction.

There are also traces of the inhabitants' activities north of the village fences. North-west of the village, and immediately west of the westernmost graves, there is, for instance, a very large pit, dug to a depth of 2 metres. This pit was unquestionably dug for the ex-

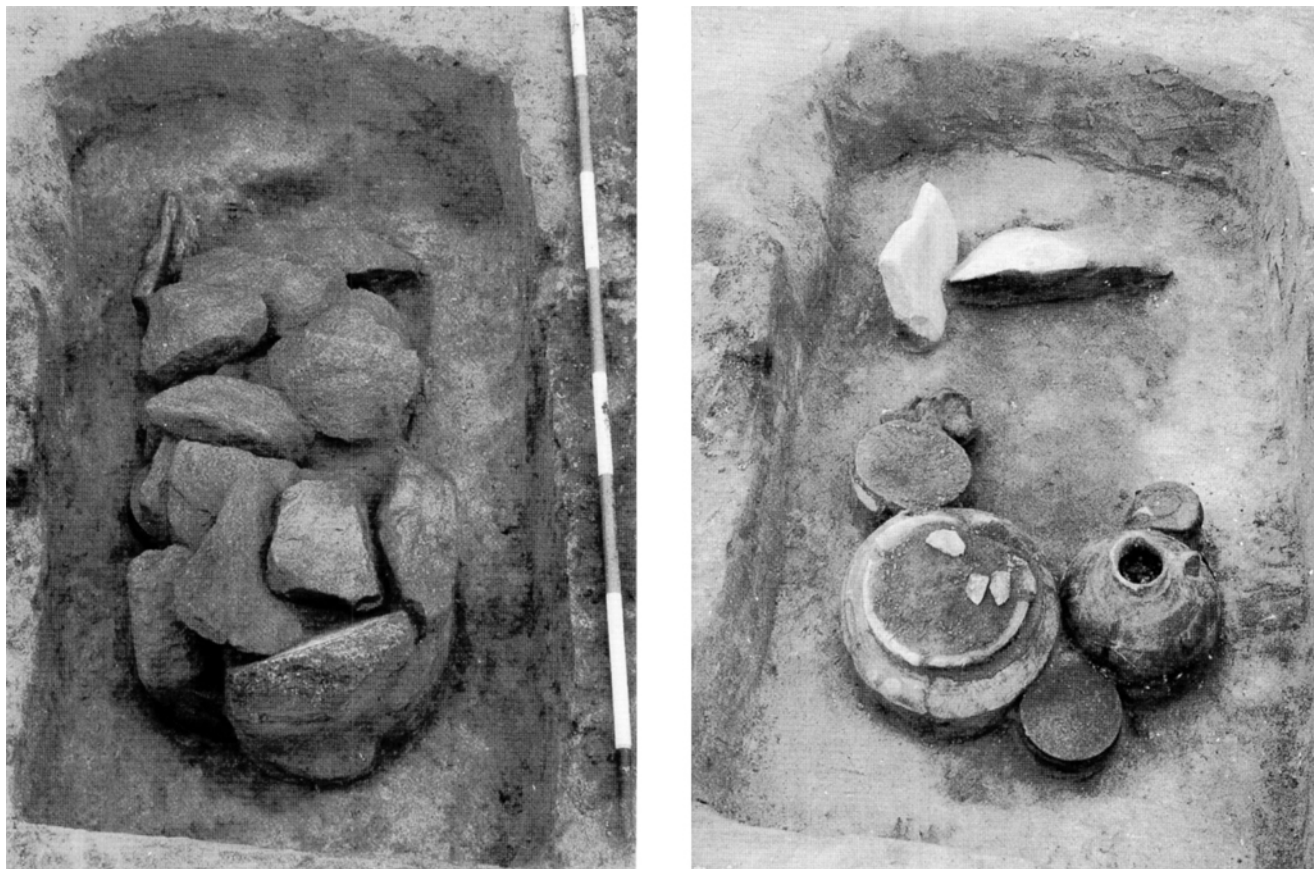


Fig. 7. One of the secondary graves during excavation. To the left the frequently occurring stone packing above and around the vessels. To the right the vessel exposed in the pit. Feature seen from the south.

ceptional clay that occurs in this area. It was then re-filled with waste which included a great deal of pottery, many fragments of furnaces and forge-stones, and a very large amount of iron-smelting slag.

THE CEMETERY

The cemetery is situated 30-40 m north of the enclosure fence of the village in an area measuring 90 x 120 m that slopes gently to the east (Fig. 5-6). Here there is a mixture of cremations, inhumations, and secondary graves from the same period as the village. Many of the graves have been either entirely or partly destroyed. This is due both to modern cultivation and to a settlement of the Early and Late Germanic Period which is found scattered across the north-west-

ern part of the cemetery. The buildings can be dated typologically and by the pottery to the Early and Late Germanic Iron Age. A metal-detector sweep of the excavated areas by Ove Madsen produced a well-preserved bronze beak brooch. In 1992 a N-S inhumation grave A4261 was excavated which also relates to the later settlement. This grave contained a coffin in the form of a halved trough and the following grave goods: 3 gold-in-glass beads, 2 spindle whorls, 1 bronze ring brooch and 1 iron knife. There remain about 200 more or less well-preserved graves and associated features. The best preservation is found in the eastern part of the cemetery, where the graves are both covered by a layer of blown sand and protected by the soil which has slipped down here over the course of time from the higher western part of the hill.

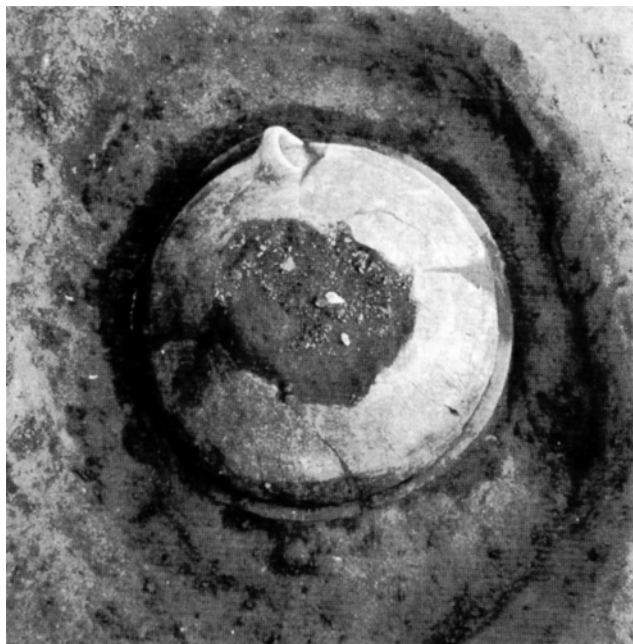


Fig. 8. The pottery dish over the bronze urn in A1136 exposed. Along the northern edge of the dish the rim of the underlying bronze dish can be seen as a lighter stripe.

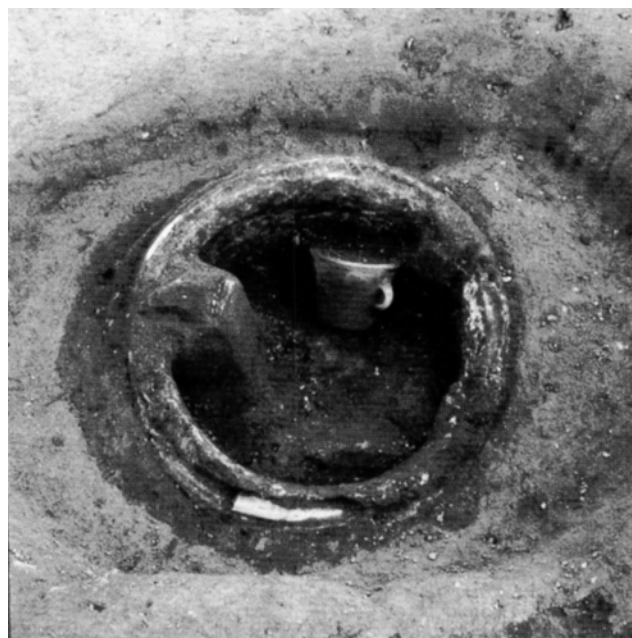


Fig. 9. The bronze dish in A1136 partially exposed and emptied. In the dish the small straight-sided beaker can be seen and amongst the calcined bones, approximately in the centre of the picture, a gold finger ring can be perceived.

The cremations include urned burials, cremation patches and urn-pits, although the former two are clearly predominant. All of the datable cremations can be assigned to an earlier phase of the cemetery, Periods IIIb of the pre-Roman Iron Age and B1 of the Early Roman Period. The datable inhumation burials examined so far are, by contrast, all from Period B2 of the Early Roman Period, especially from the earlier half of the period. Amongst the burials are 18 secondary graves with from one to seven complete pots placed in what is often a stone-lined and stone-capped pit (Fig. 7). These vessels are empty, except for a few that contain small stones. In a small number of cases the secondary graves seem to be associated with individual graves, as has been seen at other cemeteries in East Jutland (Fischer & Jensen 1985, 7), but in the majority of cases they appear not to be linked to any particular grave.

The graves at Hedegård are different in a wide range of ways from what we normally expect of burials of this date. There are, for instance, generally several artefacts in each grave; there are several weapon

graves, several graves with precious metal, and generally many more foreign and – according to our archaeological perception of the period – rare or unique objects. It is particularly the earliest graves, the cremations, which display the widest variety of furnishing and wealth. There are also relatively rich inhumation graves (Madsen 1986; 1987), but these lack the outstanding and distinctly foreign artefacts.

Four of the burials at Hedegård stand far apart from the others in terms of furnishing. These four graves were found relatively close together approximately in the middle of the cemetery (Fig. 6), possibly indicating some relationship between those buried there. They share a unique and rich range of grave goods including Roman bronze vessels.

Graves with Roman bronze vessels

Grave A1136

After the removal of the ploughsoil, grave A 1136 appeared as a circular feature of sandy clay with a

light admixture of soil, 60 cm in diameter. A large ceramic urn 48 cm in diameter at the rim had been deposited base upwards to cover the burial urn itself (Fig. 8), a very badly preserved bronze vessel (Fig. 9). This contained the cremated bones of a juvenile, 12 or 13 years old, a finger ring of thin and smooth gold wire, a decorated bronze socket (Fig. 10,2) which is probably the terminal of a knife handle like the better preserved bronze socket from A1086 described below, fragments of a small iron knife (Fig. 10,2), a little powdered silver of unknown provenance, and a small, undecorated, straight-sided beaker (Fig. 10,5). Around the bones and the artefacts there was preserved textile – presumably remains of a garment that the cremated bone and artefacts were wrapped in. Two very long knives had been placed in a V around the foot of the vessel.

The bronze vessel is of Eggers's Type 94, known as an early vessel with a pedestal and a fixed handle with vineleaf-shaped attachments, also known as the Dobbin Type (Eggers 1951) (Fig. 10,1). Vessels of this type are extremely rare in *Germania Libera*. Eggers counted only three examples in 1951. The specimen which gave its name to the type is a wetland find from Mecklenburg (Asmus 1938, 78, 267). The second find, which lacks the foot, is from the Weddel cemetery near Braunschweig (Willers 1900, 121ff.), while Eggers also assigns a profiled pedestal from Jägerspris in northern Sjælland (Liversage 1980, 40) to this type. The latter parallel is uncertain, however, as the pedestal could be from a vessel of a different type. Vessels of the Dobbin Type are Italian products made in Capua between 100 and 50 B.C. or a little later (Kunow 1983, 21, 60 with refs.). The Hedegård grave can hardly be much later. A dating to Period IIIb of the pre-Roman Iron Age is thus probable. This dating is supported by the straight-sided beaker in the grave (Bech 1980, 145).

The two large knives by the foot of the vessel are quite identical (Fig. 10,3-4), 45 cm long with a wide, hanging edge, and a strongly marked back and a tang offset from the line of the back. There are signs of bronze rivets on the tang. One of the knives had been covered by a thin layer of bronze which probably comes from the much decayed bronze vessel above it. In spite of their impressive length, these knives are not to be regarded as one-edged swords. They are

knives, probably Celtic or in any event typologically influenced by that culture. Similarly outsized knives are known in rich Celtic graves (Jahn 1916, 31; Penninger 1972, plates). In the weapon graves at Hedegård long knives with winged socket occur relatively frequently – presumably some form of slashing weapon. These knives are of a quite different type to those in A1136.

Grave A1131

Grave A1131, which was positioned 6 metres southwest of A1136, appeared as a circular feature of sand with a slight admixture of earth 90 cm in diameter. In the middle of the feature was a large domestic pot face downwards as in A1136 (Fig. 11). This vessel was the bottom, coated section of a large storage jar, the rim of which, 57 cm in diameter, was bevelled in a wavy manner. Beneath the pot was a bronze vessel (Fig. 12) with the burnt bones of a 4- to 5-year-old child and a gold finger ring which is practically identical to that from grave A1136. In this grave too, the contents of the urn were wrapped in textile. Beneath the bronze vessel were the remains of the lining of the grave pit, consisting of well-preserved fern fronds on the inside, surrounded by a cowhide. On the sloping western side of the pit lay the other iron and bronze grave goods.

The bronze vessel is an early straight-sided vessel of Eggers's Type 67 (Eggers 1951). Together with bronze cauldrons with an iron rim (Eggers types 4-8), vessels of this type are the most common types of bronze vessel of the late pre-Roman Iron Age, although some straight-sided vessels are dated to the Early Roman Iron Age (Eggers 1951). An equivalent vessel was found at Try Skole in Vendsyssel (Becker 1958, 54), and three other vessels of this type are known from the rest of Scandinavia. A total of nineteen early straight-sided vessels are known from *Germania Libera*. Seven of these are from a single cemetery: Körchow in Mecklenburg (Eggers 1951, 114).

The grave goods lying to the west of the urn consisted of several severely damaged bronze and iron artefacts. Amongst the bronze objects one could distinguish, on the basis of the amount of bronze, the melted remains of yet another, smaller bronze vessel. Two very small bronze hooks of unknown function and a heavy bronze ring which had evidently sat up-

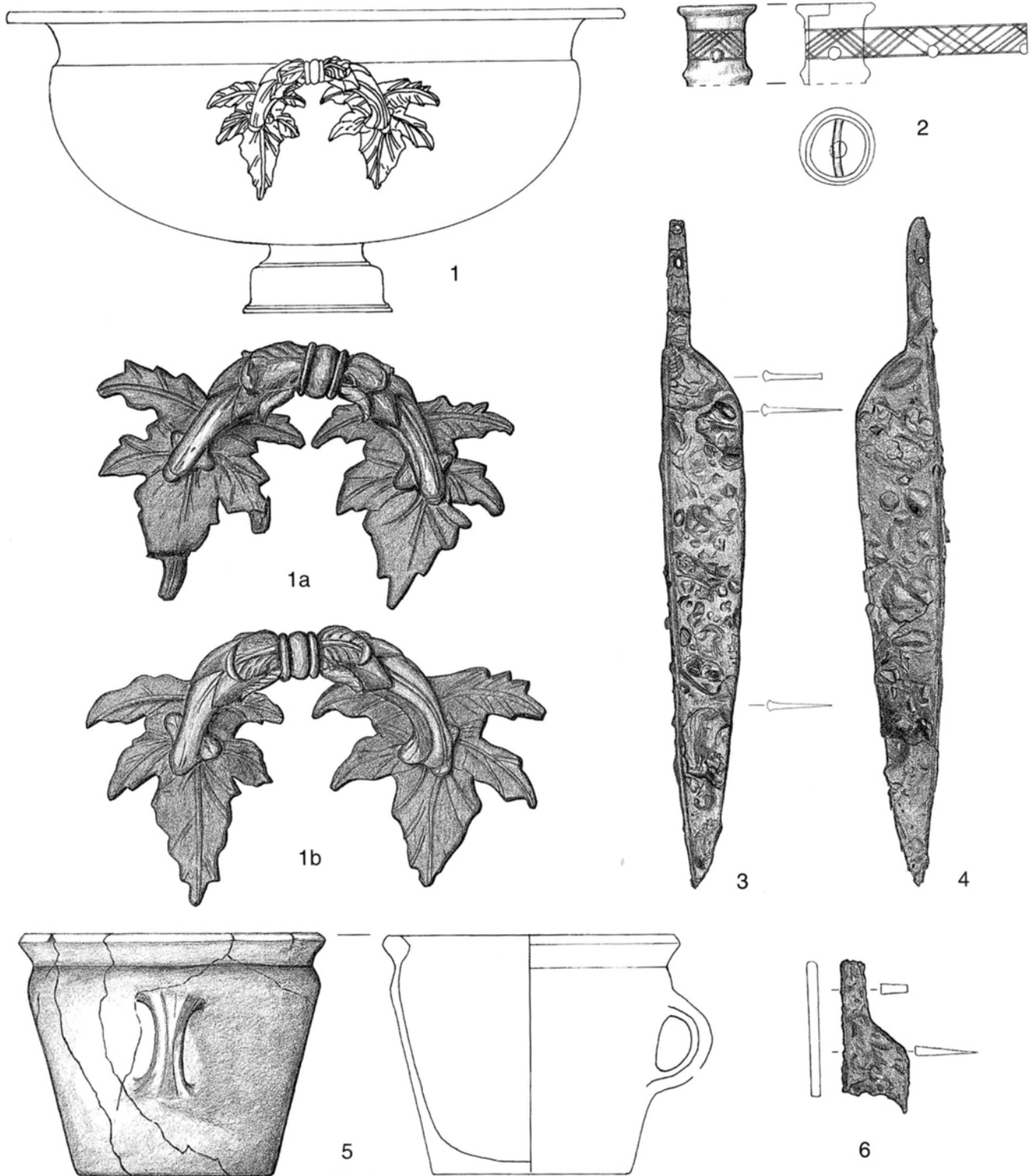


Fig. 10. Grave A1136. 1: Bronze dish (1:4) with detailed drawings of the handles (1:2). 2: Bronze socket with ornamentation (1:2). 3-4: The two long knives found under the bronze dish (1:4). 5: Straight-sided beaker (1:4). 6: Fragment of an iron knife (1:2). Drawing Lizzi Nielsen.



Fig. 11. The large upturned settlement vessel from grave A1131 exposed. Most of the very degraded gravegoods can be seen at the edge of the excavation to the west of the large vessel.



Fig. 12. The pottery vessel has been removed and the bronze dish exposed in grave A1131.

on an object made of thin sheet bronze were also found here (Fig. 13,4). The bronze ring may be part of a bronze vessel but other possibilities cannot be excluded.

Most of the iron objects are practically as difficult to identify as the bronze ones. One indentifiable item, however, is a straight-backed knife with a decorated sheath (Fig. 13,1). The sheath was made of a folded sheet of iron which terminated in a moulded chape. The front of the sheath is decorated with a fine wavy line immediately above the chape. The grave goods also included a pair of shears (Fig. 13,3). The bow of these shears was decorated with four very substantial grooves on the outer side. A great rarity this far north is a spear ferrule (Fig. 13,2). This ferrule was formed of a heavy, composite piece of sheet iron, with a nail running through at the top. Remarkably, the other end of the spear, its head, is absent from the grave goods. While ferrules are extremely rare in Scandi-

navia, they are little more common in German cemeteries of the late pre-Roman and Early Roman Iron Age, in several cases also without a spearhead (Weski 1982, 13).

The remaining items in grave A1131 have defied identification so far. Apart from one or two small iron ring-brooches, which may have belonged to the costume of the deceased or to some other items, the 'problem' is an iron object (Fig. 13,5). This object, which is now 14-15 cm across, consists of a relatively heavy piece of iron which at the bottom – or the top, depending on which way up it goes – has a cut rectangular plate. In this plate there are six small, regular, paired rectangular notches. Four "legs" run out from the corners of the plate, two long ones curving sharply back to one side, and two slightly shorter ones, less bent than the others. The two long legs terminate in flat hammered heads with a rivet- or nail hole. Some form of nail went through these, to be fastened on

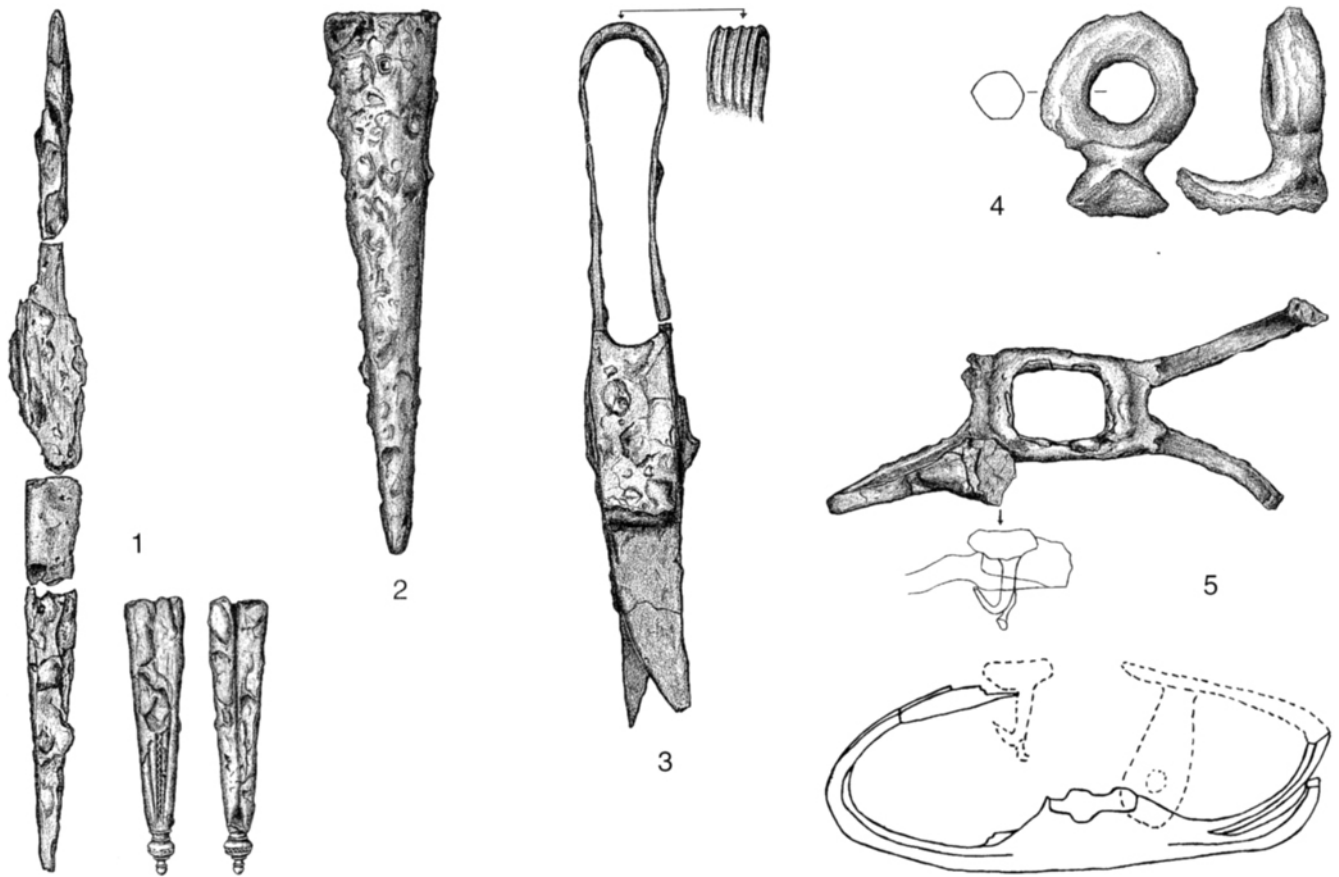


Fig. 13. Grave A1131. 1: Knife and sheath (1:2). 2: Lance socket (1:2). 3: Iron scissors (1:2). 4: Heavy cast bronze ring (1:1). 5: Unidentifiable iron object seen from above as it now appears and drawn from the side from an X-ray photograph (1:2). Drawing Lizzi Nielsen.

the inner side simply by being split into two halves, each of which was bent back on its particular side. These nails passed through another loose, square head, probably to strengthen the thin sheet at the end of the leg. The two other legs were probably shorter and terminate in similar flat, oval heads. Here there is a very strong iron rod with a rivet hole and a bronze nail at one end.

The function and use of this object is a complete mystery. It must be part of some larger item, possibly of wood. But what? A few other pieces of iron with holes and a couple of small iron loops could possibly be parts of the same thing.

Grave A1086

Grave A1086 was positioned about 12 metres east of A 1136. When the soil was removed from over the grave a diffuse feature measuring about 2.5 x 1.5 m was found immediately underneath the ploughsoil (A 840), with a quantity of pieces of melted bronze, a couple of square bronze pieces from the belt described below, a slightly shaped bronze horse head (from the zoomorphic handle described below), a fragment of an iron fibula, a few very small fragments of burnt bone and some charcoal. Immediately to the south-east of this layer, which was 4-10 cm thick, a nearly circular pit 50 cm in diameter appeared. This



Fig. 14. The urn in grave A1086 during excavation.

contained urn-grave A1086 (Fig. 14), where the grave goods described below were found beneath the urn, a large wavy vase, showing that the objects in A840 derived from this burial. Since there is no sign of any disturbance either in or around the urn and the iron and bronze artefacts below it (A1086), it is possible that A840 is the site of the funeral pyre. If this were the case, the melted bronze pieces can be interpreted as items that were overlooked during the burial itself. No features of this kind have been observed beside other graves at this cemetery. Since A 840 was quite well protected in the lower-lying part of the cemetery, however, we cannot reject the possibility that other similar pyre-sites have been removed by cultivation.

The cemetery was swept with a metal detector several times after the excavations. Apart from one shield boss nail, only a Late Germanic Iron-age beak brooch was found. This therefore does not suggest that many pyres were ploughed to bits. It must, however, be noted that the metal artefacts were generally so poorly preserved at this site that ploughing would hardly leave much of any hypothetical metal behind.

The urn in A1086 is a 36 cm high, wavy vase with a markedly thickened, out-turned rim, and a vertical handle with greatly expanded fixing points on the

upper side. This vase is undecorated apart from narrow, vertical lustrous gooves on the coated underbody of the vessel leading up from the base to the polished upper body. The vessel was full of burnt bone and the following objects:

- 1) 2 identical massive gold beads.
- 2) 1 unravelled, punchmarked, gold spiral bead.
- 3) 2 nearly identical bronze balls measuring 5 mm (perhaps melted drops).
- 4) 1 very thin piece of sheet bronze, possibly from the bronze sieve referred to below.
- 5) 1 unidentifiable piece of sheet bronze with gold- or brass-like plating.

The large vase had been put down upon a large quantity of iron and bronze objects. At the top of this group and virtually surrounding the base of the urn was an iron ring. Beneath this were the other finds, consisting of about 55 pieces which can be reconstructed as the following artefacts:

- 6) A straight-backed iron knife with a grip socket and a bronze suspension ring.
- 7) A massive cast bronze belt of square and rectangular plates connected by bronze rivets and with a fastening in the form of a belt hook and ring. In the front of the belt is a free-hanging loose end of gathered rings and acorn-shaped connecting pieces which terminates at the bottom in an almost triangular pendant.
- 8) Two iron fibulae.
- 9) An iron sewing needle.
- 10) An awl-like iron object with a crooked point.
- 11) The remains of a bronze sieve.
- 12) Possible remains of another bronze vessel.
- 13) A fragment of a large translucent green glass bead.
- 14) An animal-shaped bronze handle.
- 15) A quantity of unidentifiable heat-distorted bronze fragments.

The majority of the large number of pieces of bronze in A1086 are from the massive cast bronze belt (Fig. 15). The total length of the belt and the exact number of its constituent parts in both the belt itself and the section that formed its free end hanging down in front

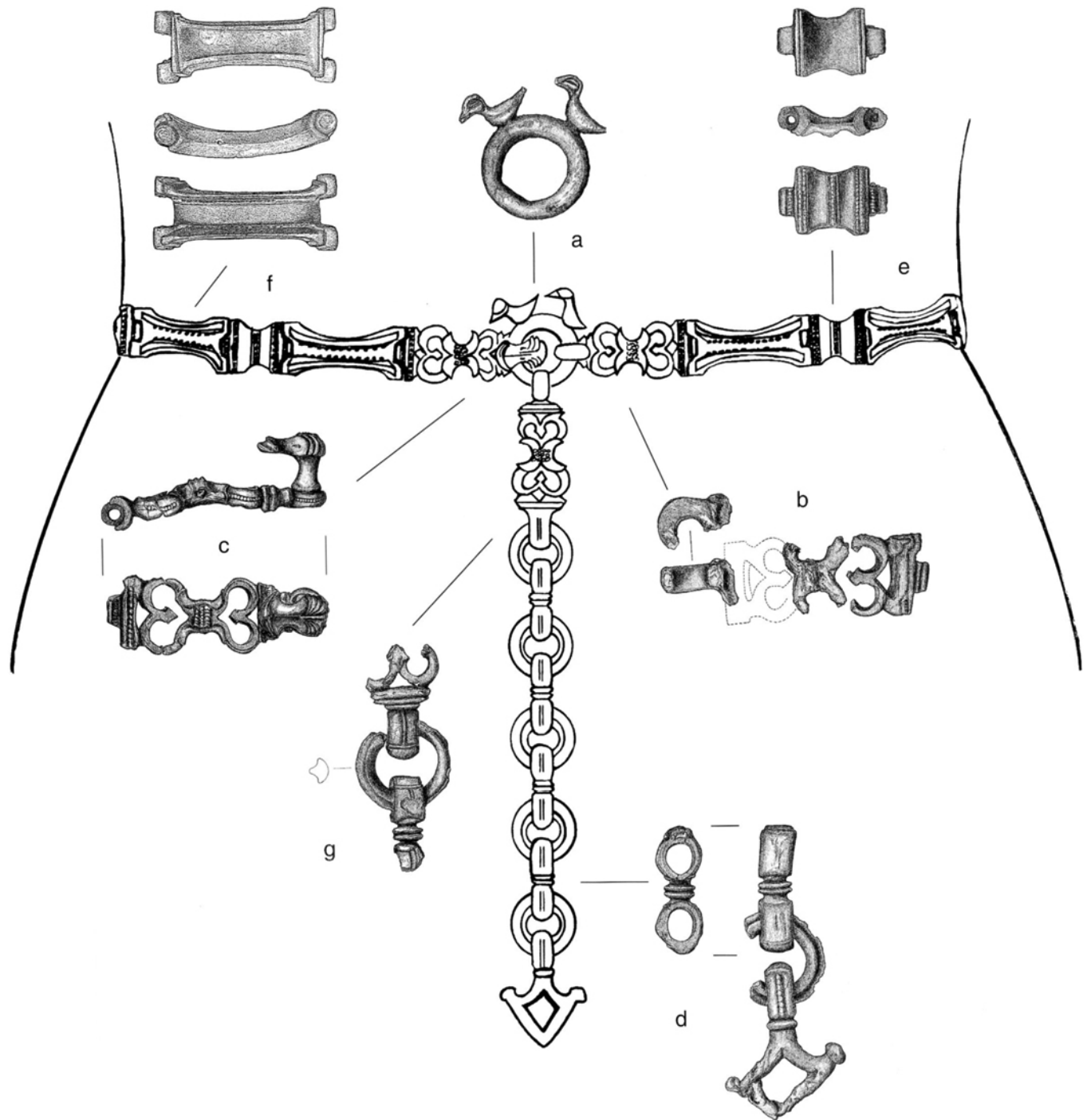


Fig. 15. Drawing of some of the best preserved parts of the bronze belt from grave A1086, together with a reconstruction of the belt. a: belt ring, b: "belt clasp", c: belt hook, d: the free end of the belt together with a reconstruction of the lowermost suspension, e: quadratic bronze link, f: rectangular bronze link. All in 1:2. Drawing Lizzi Nielsen.

cannot be determined because of the effect of the heat on many of the pieces. The belt is closely related to what are known as massive case North-Jutlandic bronze belts (Müller 1900, 130; Werner 1952, 133ff.; Klindt-Jensen 1953, 54ff.; Becker 1958, 49ff.), but it nonetheless differs from the other seven known Danish belts in several respects. The belt is more complex and more detailed in its construction than any previously known specimen. If the belt is compared with the best preserved examples, from Søder Skjoldborg and Karby, and the somewhat more fragmentary specimens from Rævebakken, Try and Oplev, the same basic feature can be seen: namely a metal belt of massive, individually cast, decorated bronze parts, connected by bronze rivets and fastened at the front by a belt ring and belt hooks. The belt hooks are formed more or less naturalistically as animal heads. Down from the belt ring hangs a free end of rings of faceted cross-section, connected by acorn-shaped pieces. The free end on the Hedegård belt terminates in an unfortunately much distorted triangular attachment, while the Søder Skjoldborg belt, for instance, terminates in two or three small bronze chains each with an almost anchor-shaped attachment.

The belt hook on the Hedegård specimen is located on a plate which has been shaped as two opposed hearts in cast openwork. In profile, the plate is slightly curved along its length and has traces of a hole between the two hearts through which a hook or something similar may have been fastened, possibly for the suspension of the knife described below. The belt hook has the shape of an animal or human head with a mass of hair parted in the middle, slightly marked eyes, an obtrusive lower jaw, and a long, concave neck. The head and neck are cast in a separate piece which was subsequently added to the heart-shaped base. The belt hook catches on to the central part of the belt, a heavy bronze ring with two swimming ducks on the upper side. The heart-shaped mounts recur in the three sections that form the central fastening and suspension area. The different state of preservation of the pieces means that there are some uncertainties in the reconstruction of this central area of the belt. While the North-Jutlandic belts previously known evidently consist only of rectangular plates, the Hedegård example consists of both rectangular plates (mostly of the same type as those

of the North-Jutlandic belts) and nearly square ones which seem not to be paralleled in any previous finds. As has been observed several times in the past, the massive cast bronze belts were produced in Germania under strong Celtic influence (e.g. Müller 1900, 138; Werner 1952, 136; Klindt-Jensen 1953, 57). This is probably equally true of the Hedegård belt, although it is more complex and better made than the other examples from Denmark.

The three gold beads (Fig. 16,1) do not, as far as we know, have any exact parallels in Scandinavia. They probably represent a composite neck ornament, the main element of which was formed by the now partly unravelled spiral bead made of 23-carat gold thread of almost triangular cross-section (von Szemerey 1990, 59). The outer side of the bead is divided into three areas, a blank one to either side and one in the middle decorated with fine triangular punchmarks. Similar spiral beads of gold, silver, bronze and iron have previously been found (Norling-Christensen 1954, Pl.59 no.17; Klindt-Jensen 1953, 57). The closest parallel is a smooth spiral gold-wire bead from the Store Skindbjerg cemetery at Skjern. This bead is smaller, however, and undecorated (Hansen 1990, 54).

The two smooth round gold beads are 11 and 12 mm in diameter and 7 and 8 mm high, and of 20-carat gold (von Szemerey 1990, 59). They were originally fully identical but one of them has been slightly affected by the fire. The beads are solid, smooth and have the string hole marked by a straight, cut ridge. As far as we know these beads have no exact parallels, but two similar beads were found in Juellinge grave 1 (Müller 1911, Pl.III no.3). The Juellinge beads, however, are smaller, and lack the ridge by the string hole.

The massive cast belt makes up the majority of the grave goods beneath the urn. There are, however, several other artefacts here which confirm the exceptionally rich and rare character of the grave furnishing.

The iron ring found at the top of the pile is 6 mm thick and fully square in cross-section. The ring was originally completely closed, with an outer diameter of 26 cm. The ring bears no traces of other metals or of anything having been broken off. The item thus appears to be complete. Analysis of the iron has shown that it was made of phosphorus-free iron with a little copper and thus not of metal produced from Danish

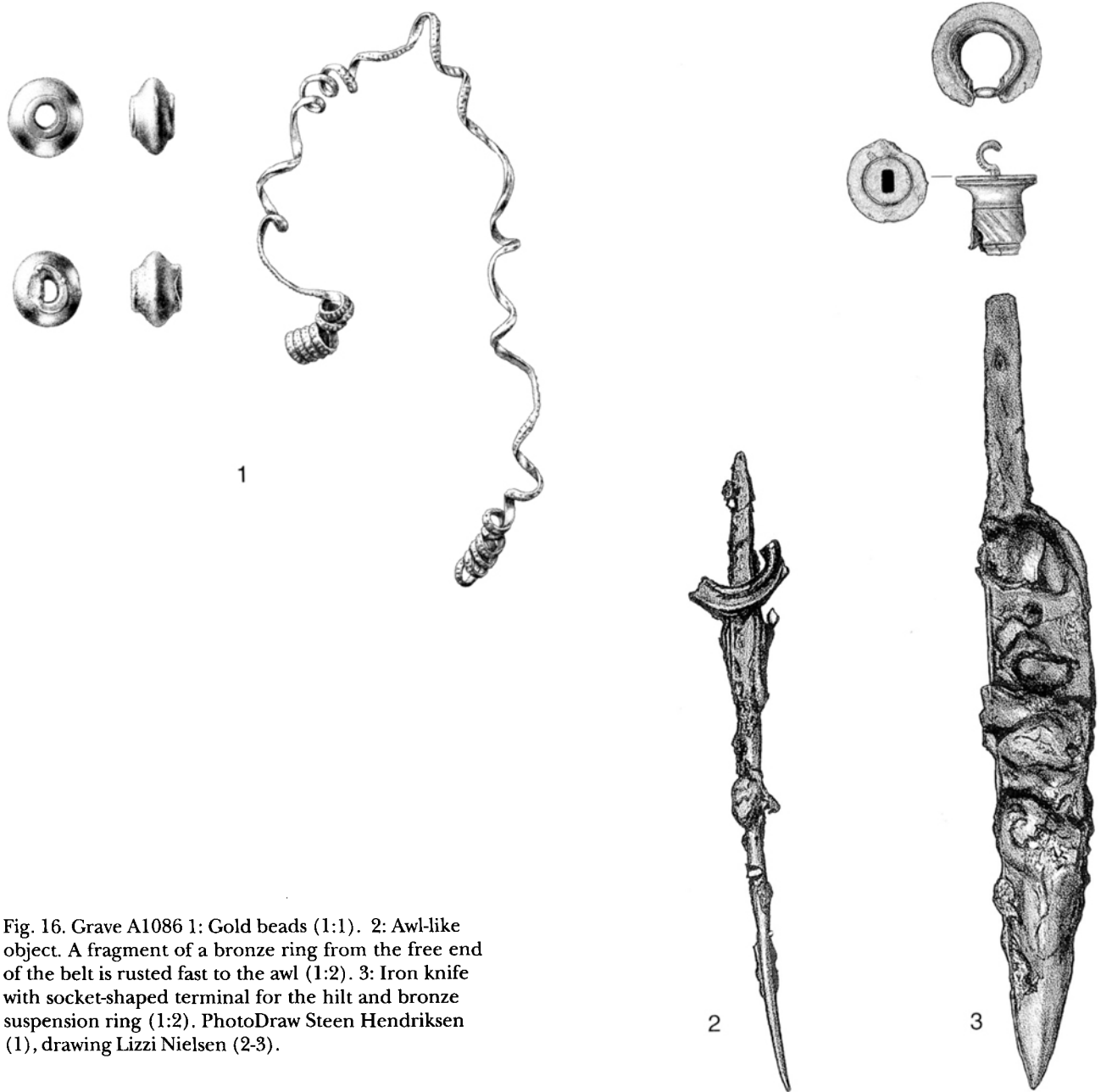


Fig. 16. Grave A1086 1: Gold beads (1:1). 2: Awl-like object. A fragment of a bronze ring from the free end of the belt is rusted fast to the awl (1:2). 3: Iron knife with socket-shaped terminal for the hilt and bronze suspension ring (1:2). PhotoDraw Steen Hendriksen (1), drawing Lizzi Nielsen (2-3).

bog ore (von Szemerey 1990, 34). It is not known whether it was the raw material or the finished article that was imported.

The function of the iron ring is unknown. Iron rings are known from the large bronze cauldrons of the late pre-Roman Iron Age (Eggers 1951, Types 4-6), but the Hedegård ring is simply too small to have been attached to one of these. It is nevertheless prob-

able that it was some part of a bronze cauldron. A similar ring is known from a find from Poland, attached to an early Roman situla (Wielowiejski 1985,158), and in 1989 a small bronze cauldron with a rather similar iron ring was found at the cemetery of Wilhelmslyst on Langeland (AUD 1989, no.165). Whether there were something similar in the Hedegård grave, we do not know, and other possibilities

must be considered too. With reference to the other finds in the grave, however, the idea of a Roman bronze vessel is not improbable. There is indeed a quantity of melted sheet metal from at least one bronze vessel, probably, in fact, from two. In one case the object was undoubtedly a sieve, the holes in which can be seen in an X-radiograph. This object is too fragmentary for any closer identification, but it is in any event one of the earliest finds of a bronze sieve from *Germania Libera* (Kunow 1983, 27).

The zoomorphic handle (Fig. 17) was probably attached to one of the bronze vessels, though we do not know which. This handle has no precise parallels, although it clearly belongs to the same group as two other Danish finds of vessels with secondarily added Germanic handles. These are the small silver cup from Hoby (Friis Johansen 1923, 150) and the bronze beaker from Mollerup (Eggers 1951, no.167; Klindt-Jensen 1953, 59; Kaul & Martens 1995, 129). The handle of the Mollerup cup has been quite differently reconstructed by Eggers (1951, no.167) and Klindt-Jensen (1953, 59). The handles have most recently been discussed by Kaul & Martens (1995, 129). Klindt-Jensen's reconstruction is followed here.

At the top of the Hedegård handle there is a finely shaped horse's head with an open mouth, ears pointing backwards, and large circular eyes which take the form of a hole through the head. The horse's mouth had been biting on to the presumed rim of the bronze vessel. Behind the horse's ears can be seen the uppermost part of the handle itself, which was formed of two tightly joined bronze rods of circular cross-section. These continue to approximately the middle of the handle where they are gathered in a knob-like projection. To this is attached a ring, the upper side of which is shaped as a wild boar with a snout, fangs, bristles on its back, and a curly tail. Immediately below the body of the boar can be seen an opening 5 mm wide with some dark material which may be the remains of some organic stuff.

In between this ring and the head were one (or two) horse's legs. The best preserved of these is slightly twisted along its length and has a clearly marked hoof, knee and thigh. The hoof may have been fastened to the side of the vessel. The other end is hammered flat to form a circular plate which was probably attached to the handle. An X-radiograph appears

to show a second horse's leg. This, however, is so poorly preserved that it is quite uncertain how the object, on its own, would originally have looked. There was also a small bronze object amongst the many severely fire-distorted bronze fragments which has traces of rivets on the back and decoration on the front. This piece may belong to the handle, and could be a small animal head that, as with the handle on the Mollerup cup, was a connecting piece between the handle and bronze vessel.

The reconstruction of the handle proposed in figure 25 is somewhat doubtful and should only be regarded as a suggestion. Most certain is the placement of the horse's head and the boar ring's association with the knob-like projection, where it fits precisely. Although the size of the handle is uncertain, it must have been attached to a relatively small vessel. As with the other two known handles from Hoby and Mollerup, the Hedegård handle is probably Germanic. Its style, however, is clearly Celtic. This is particularly the case with the wild boar (see e.g., Penninger 1972, Taf.34 no.1).

Amongst the other artefacts within the grave was a long, straight-backed iron knife 24.5 cm long, with a fine, worked, socket-shaped cap to the handle with a suspension hook, all of bronze (Fig. 16,3). The socket is decorated on the side with slightly angled grooves, while the upper side with the decorated hook has two concentric circles. The end of the handle is also associated with a bronze ring of faceted cross-section with a marked central area to which the hook on the handle was fastened. The presumably organic haft of the knife has not survived, but it was attached with bronze rivets. Whether or not the object was fastened to the belt, and, if so, how, we cannot tell. As noted above, there are traces of a bronze nail or rivet, possibly the top of a now lost hook, in the centre of the plate with the belt hook.

A 20 cm-long awl-like artefact with a slightly crooked point was also found in the grave (Fig. 16,2). A half-ring from the free end of the belt is now rusted on to it. Its identification as an awl is uncertain in view of the large size of the item. It may rather be a firesteel or have had some quite different function. There was also a 9 cm-long iron sewing needle amongst the tools.

The two iron fibulae in the find, and a fragment of

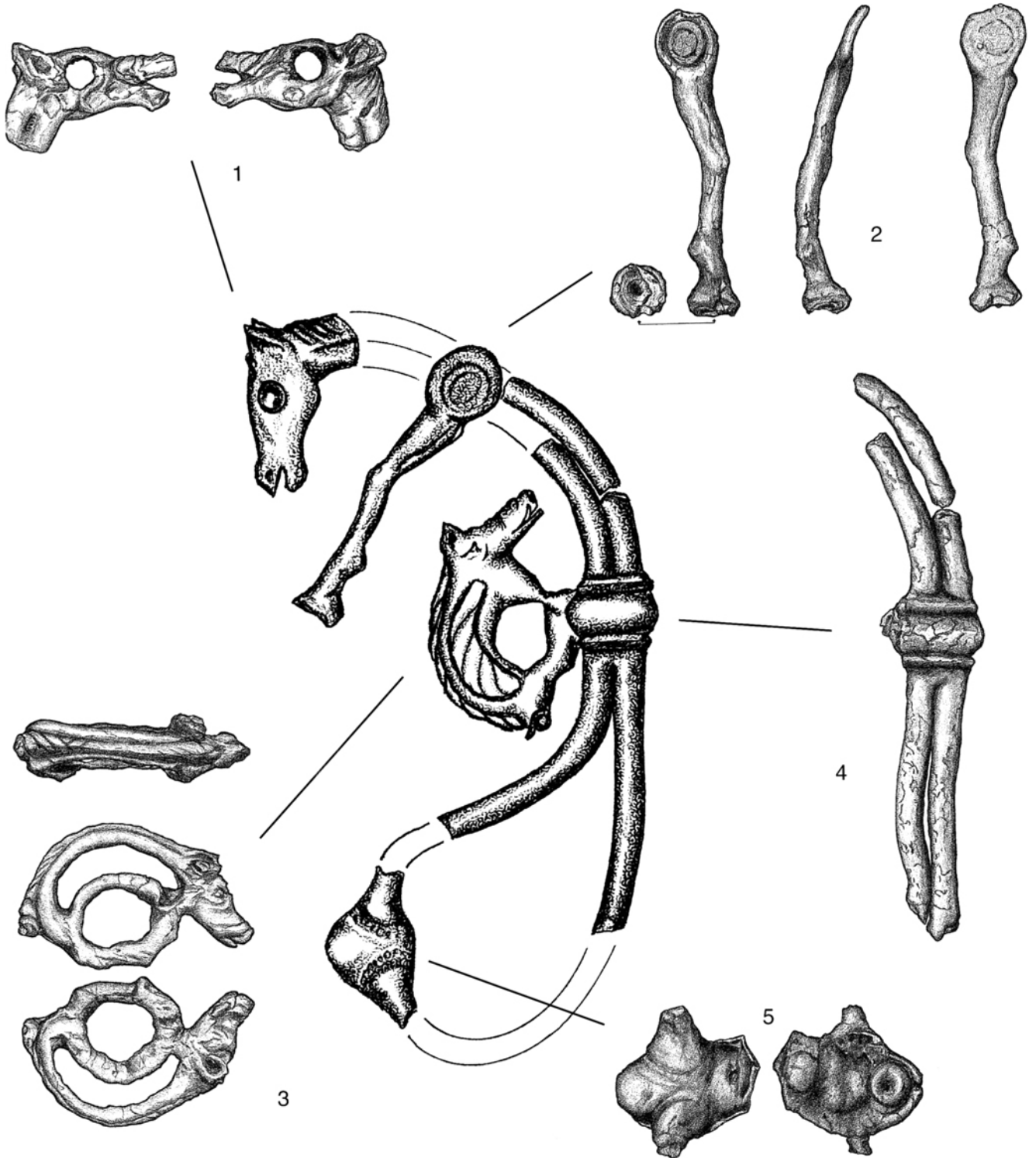


Fig. 17. Reconstruction of an animal-formed handle from grave A1086/840, and its best preserved parts: 1) The horse's head, 2) the best preserved leg, 3) the "wild boar ring", 4) handle fragment with bud-shaped extension onto which the "wild boar ring" fits exactly, 5) The presumed lower terminal. 1:1. Drawing Lizzi Nielsen.

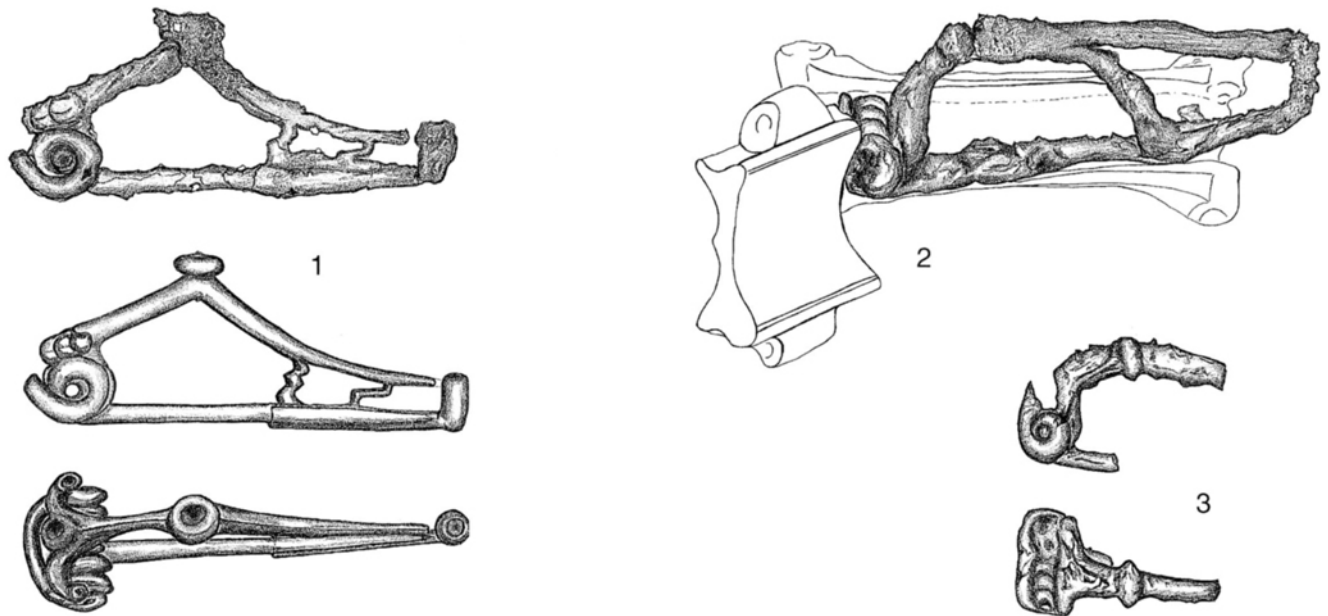


Fig 18. The three iron fibuli from grave A840/1086. 1 and 2 are from the heap of artefacts under the urn in grave A1086, while 3 is the fibula fragment, which was found in the burnt layer A840. 1 has been drawn partly as it now appears, partly from an x-ray photograph (lowermost). 2 is rusted together with two parts of the belt, a rectangular and a quadratic bronze link respectively. 1:1. Drawing Lizzi Nielsen.

a third (Fig. 18) from the overlying burnt layer (A 840), are extremely important as they provide an answer to an old debate about the dating of the massive cast belts (Klindt-Jensen 1953, 56; Becker 1958, 59). The two fibulae in the group of artefacts beneath the urn are a Kostrzewski variant D/E and a late Kostrzewski variant K fibula respectively (Kostrzewski 1919), and the grave can, in consequence, be dated to Period IIIb. The fibula fragment from A 840 supports this dating. This consists of the head and spiral probably from an Almgren 65 fibula (Almgren).

The final artefacts to be noted are a bronze tube of unknown function with a central, torus-like projection, and a fragment of a large translucent green glass bead.

The bones from A 1086 have kindly been identified by lic. med. Pia Bennike (von Szemerey 1990:65), who reached the following conclusion: "The skull fragments appear rather thick and the other bones imply a relatively strong individual, perhaps a man. The open aveolae in the lower jaw with no traces of tooth-

loss, and the open skull seams, indicate that this was a young adult, i.e. less than 35/40 years old."

The osteological sexing is uncertain, therefore, and far from likely in view of the grave goods. The grave furnishings, which include beads, three fibulae and a sewing needle, are distinctly female. This holds for the belt too, as in Celtic graves, the belts of which are the models of the Scandinavian types, these occur in women's graves (Werner 1952, 135). If the grave is sexed by archaeological means, it is most probably a woman's grave.

Grave A4103

This grave was sited 10-15 metres south of the three graves already described (Fig. 6) and, like these, is an urn-grave. The grave appeared in the ground as a feature aligned north-south, 1.48 m long and 1.12 m wide (Fig. 19). Within this feature there were two further layers, one to the north and one clearly cut through its southern end. About half a metre south and north

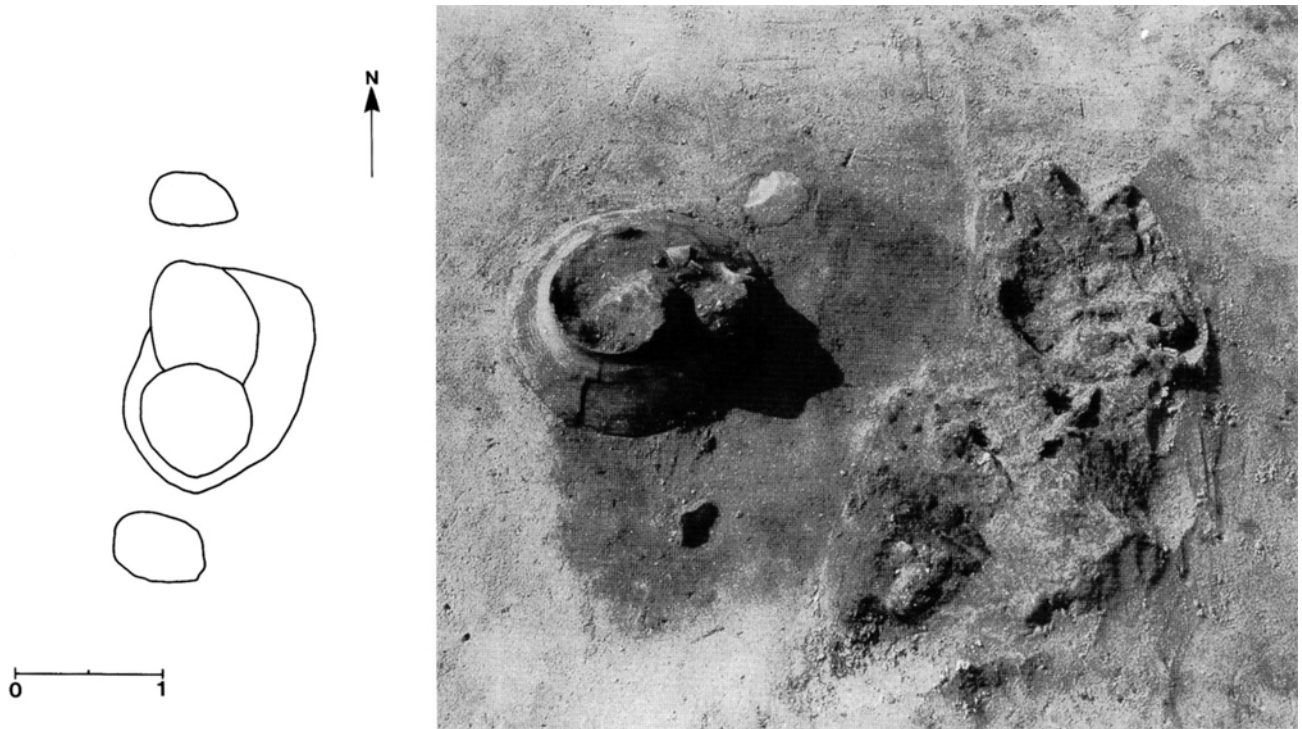


Fig. 19. Plan of grave A4103 together with a photograph of the feature seen from the east during excavation. To the north of the exposed rim of the urn lies the melted bronze vessel and the other gravegoods.

of the grave (measured from its edge) there were two features resembling post holes. It is not clear whether or not these relate to the grave, as some form of grave marker, or are only coincidentally associated with it.

In the southern feature within the grave there was a black-burnished meander-decorated vase (Fig. 20) containing a small quantity of burnt bone (only 6 g in all), a small amount of powdered silver, a somewhat uncertain and relatively small fragment of glass and a thin bronze disc 2 cm in diameter. The urn was surrounded by three smaller black-burnished pots, a bowl and a handled vessel to the west, with the bowl placed upside-down over the handled vessel as a lid, and fragments of a pedestal beaker to the east.

In the earlier layer north of this collection of pots there was a large quantity of melted bronze and a number of iron artefacts that had rusted together (Fig.



Fig. 20. The urn of grave A4103 seen from the west with meandering ornamentation and the surrounding secondary vessels exposed. To the north of the group of vessels melted bronze and iron can be seen.

20). How far apart in time these two deposits are we do not know. It does not appear that any finds were removed from the earlier deposit when the later intervention was made, and the fact that both cuts are within the same larger feature indicates some form of connection between them. The idea that this is a single burial is supported by the fact that burnt bones were found only in the large urn and not amongst the bronze and iron artefacts. At Hedegård it is not uncommon for some of the grave goods to lie beneath or alongside the urn, although the whole grave assemblage usually lies within a single cut.

Lying both over and under the artefacts was organic material which proved to come from a woven or bound net of reed. It is clear that all of the grave goods were packed into this net for burial.

The great majority of the bronze derived from a fire-damaged vessel. On the basis of its well-preserved foot and fragments of the handles (Fig. 21,1) this can be identified with reasonable confidence as of Eggers's Type 100 (Eggers 1951). Although bronze vessels are far from common in this early phase of the Early Roman Iron Age this is a relatively familiar type. It is known from five or six Scandinavian graves and is a type which, with minor changes, was a long-lived one both in the Roman Empire and in Germania Libera (Lund Hansen 1987, 463).

The other bronze objects in the grave consisted of three rivets and a small rectangular decorative mount (Fig. 21,2) which had apparently been attached to a leather belt, together with a fragment 2.5 cm long, possibly the foot end of a fibula (Fig. 21,4). The fibula fragment is not classifiable, but it is apparently from a specimen with an openwork catch piece and a foot of triangular cross-section.

At the south-eastern edge of the bronze finds lay a quantity of iron rusted together, in which only a pair of shears could be recognised during excavation. An X-radiograph allowed a dagger with its sheath, a knife and a small spearhead to be identified (Fig. 22). The shears are relatively small, only 16.6 cm long. The knife, which was partly covered by the shears, is long, thin, straight-backed, and has a rolled-up haft. It is 18 cm long and 2 cm wide. Close beside the knife lay a spearhead 16.2 cm long with a short socket measuring 3.4 cm that has three collars towards the head alongside a massive mid-rib of rhomboidal cross-section

which runs up to a flat point. Spearheads of this type are rare. A similar spearhead is known from Kalkriese (Franzius 1997, 78) and relatively few others are known from the area of Denmark (pers. comm. M. Watt). From the same grave, but amongst the melted bronze from the vessel, came a more common type of spearhead 10.2 cm long (Fig. 21,5) and a D-shaped iron belt buckle (Fig. 21,3).

What particularly makes this grave assemblage stand out is the dagger with its sheet-iron sheath. This is what is known as a *pugio* (Latin for "dagger"), a type of weapon that was common amongst the Roman legions and which, with decorated sheet-iron sheaths, is known in relatively limited numbers from the 1st century A.D. *Pugiones* continue in use in the Roman army into the 2nd and 3rd centuries, but without decorated sheet-metal sheaths (Hermann 1969:132; pers. comm. W. Zanier). Leather and wooden sheaths were far more common in the 1st century too. Luckily, the dagger had been pulled up out of its sheath upon burial so that both pieces can be studied in their entirety (Fig. 22). The dagger is fully preserved. It is 35.2 cm long, including a grip of 10.6 cm. This ends, towards the blade, in a 7 cm long hilt guard which is made of two pieces of strip iron on the front and back of the hilt respectively. The grip is made of three layers making it 2.5 cm thick (Fig. 23). The middle plate is a continuation of the blade. In between this and the two outer plates there was some organic inlay. This material has not been identified although horn is used here in other cases (Ypey 1960-61, 347). The front and back sides of the grip are made up of two practically identical iron plates which expand in the middle and at the top. The back is almost completely smooth while the front has some characteristic rivet heads in several places, all of them with a central cavity to receive some material. Similar rivets occur on the hilt guard and there may also have been a rivet in the small hole in the projection in the centre of the grip. We know, from better preserved finds, that the rivets carried inlays of red or green enamel (e.g. Thomas 1971, 48ff.). The X-radiograph reveals two further rivets in the hilt guard and three in the central axis of the grip. These were presumably also meant to hold the composite grip together. The front side of the grip has a further sheet-iron plate of practically animal-head shape on the expand-

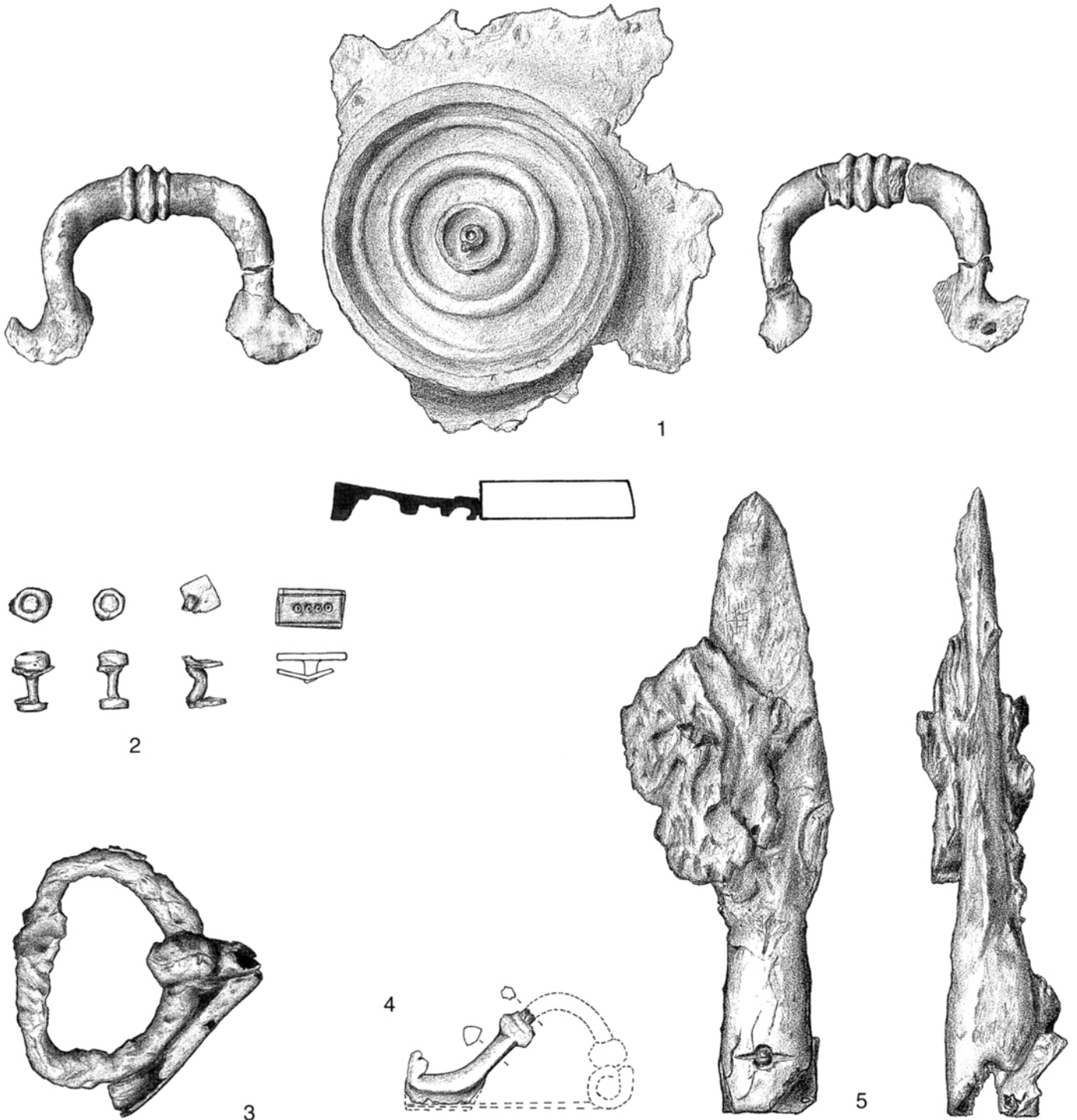


Fig. 21. Grave A4103. 1: Handle fragments and a foot from a melted bronze dish (1:2). 2: Circular decorated bronze rivets and a decorated rectangular bronze plate. The bronzes lay together at the base of the bronze dish (1:1). 3: Iron belt buckle (1:1). 4: Foot of a bronze fibula from. The stippled parts have been reconstructed (1:1). 5: Lance point (1:1). Drawing Lizzi Nielsen.

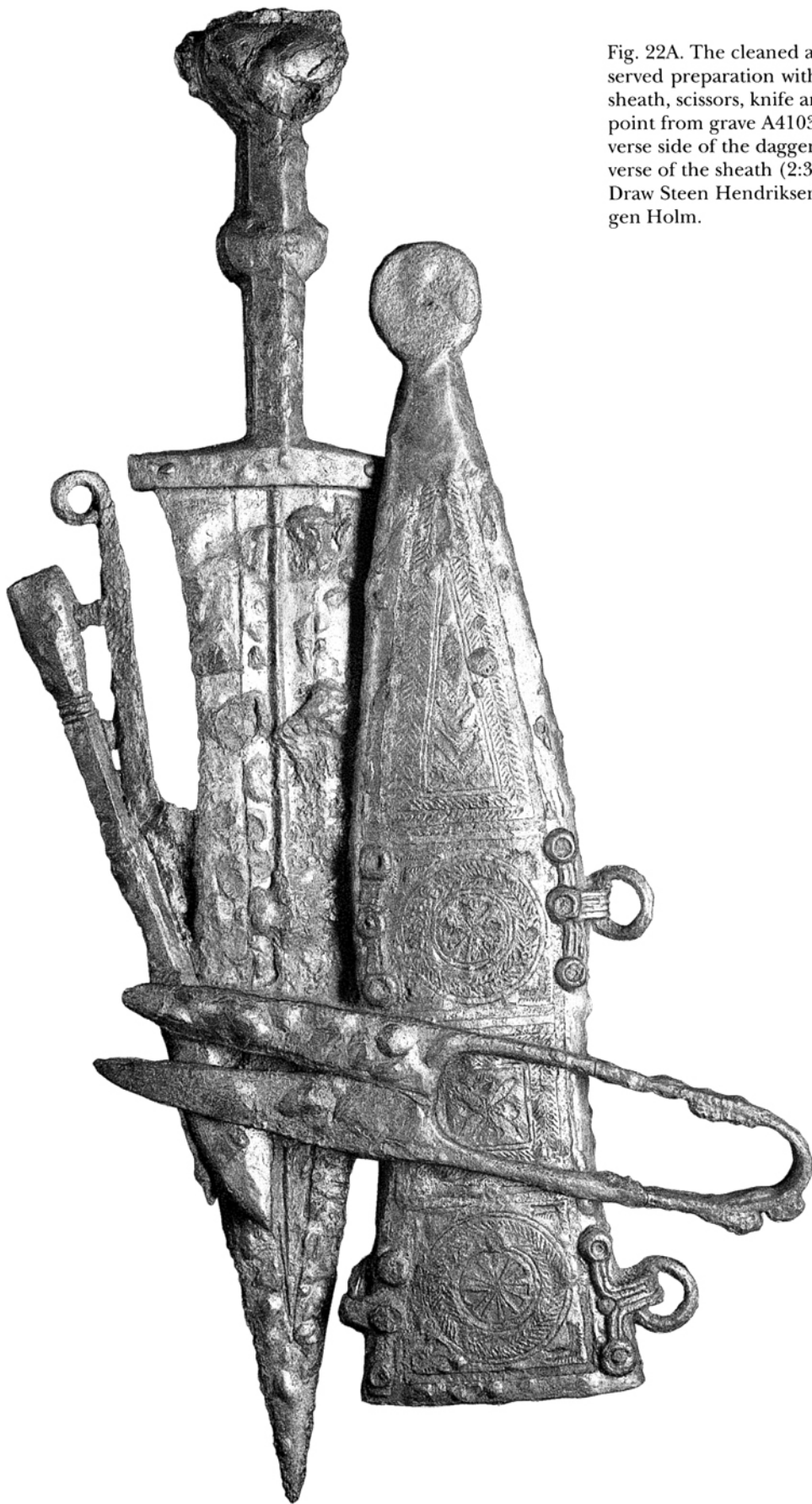
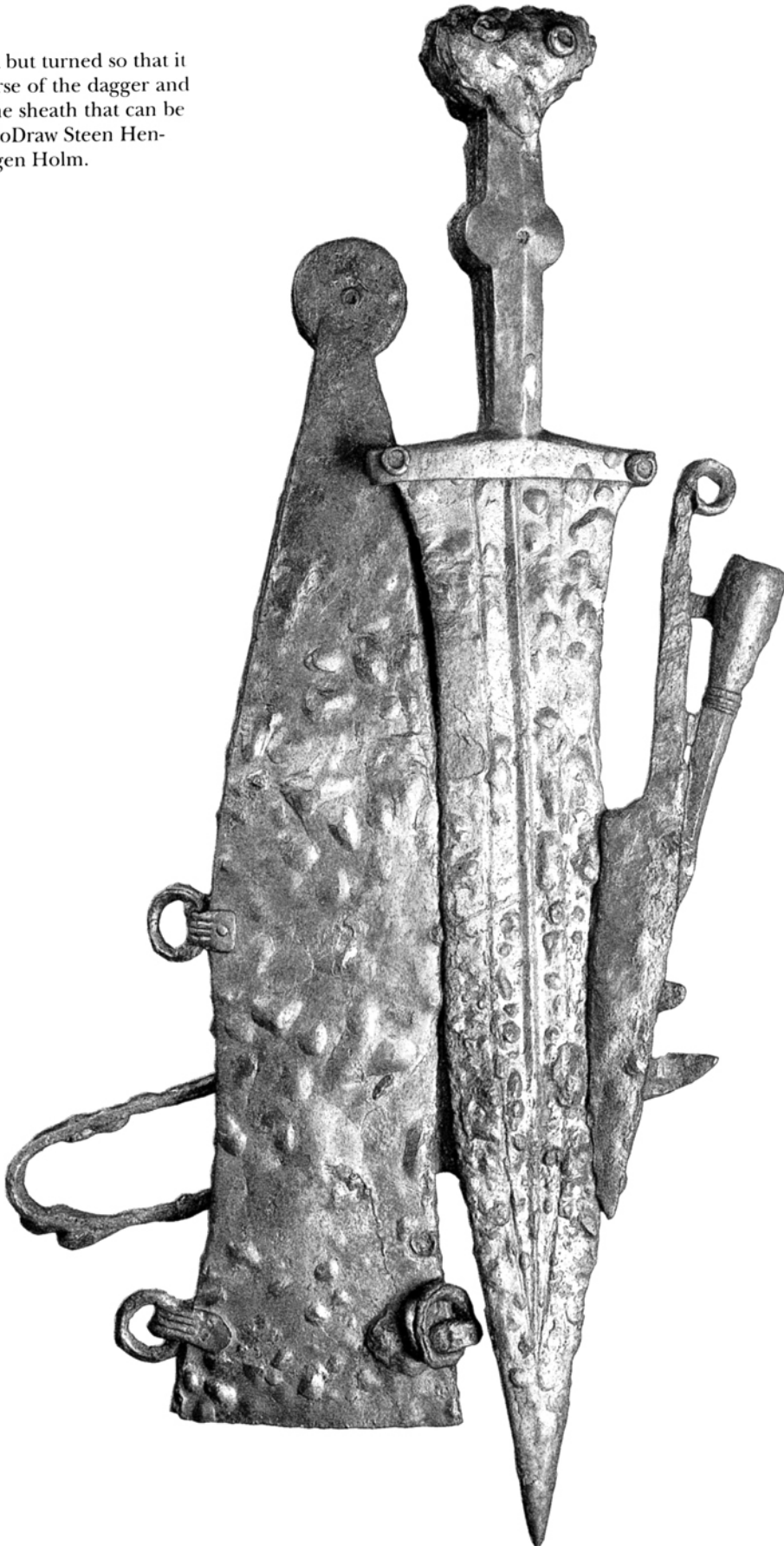


Fig. 22A. The cleaned and conserved preparation with dagger, sheath, scissors, knife and lance point from grave A4103. The reverse side of the dagger, the obverse of the sheath (2:3). Photo-Draw Steen Hendriksen and Jørgen Holm.

Fig. 22B. As 22A but turned so that it is now the obverse of the dagger and the reverse of the sheath that can be seen (2:3). PhotoDraw Steen Henriksen and Jørgen Holm.



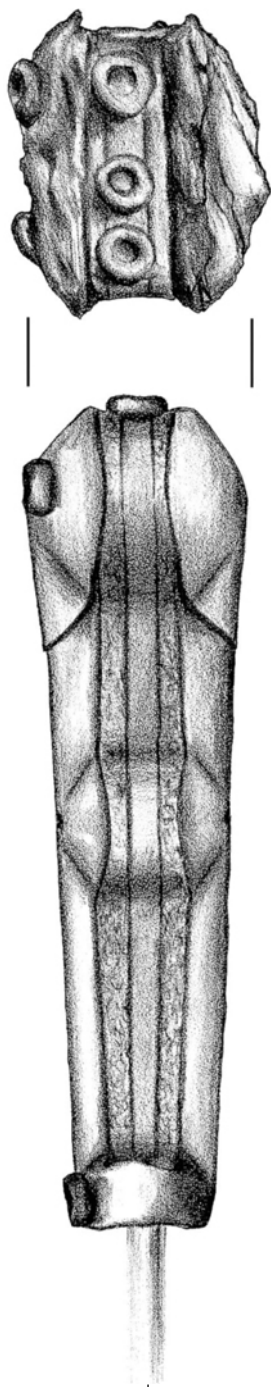


Fig. 23. The dagger hilt from grave A4103 seen from above and from the side (1:1). Drawing Lizzi Nielsen.

ed area at the top. At the end of the grip there is an iron strip which holds its parts together (Fig. 23). This strip also carries three rivets with cavities for enamel inlay.

The dagger blade, which is 24.6 cm long, has curved sides and is sharply pointed. The blade has a prominent mid-rib surrounded by two blood furrows. The furrows and mid-rib run together and end 4.2 cm above the sharp point.

The dagger's sheath is 27.3 cm long, and at its mouth, which is its widest part, 6.7 cm wide. The sheath has a front and a back side, both of them made of thin sheet iron, the front side being convex and the back flatter. Apart from the four suspension mounts along the sides of the sheath the back is smooth, so the account here will concentrate on the richly decorated front side (Fig. 22; 24).

Along the sheath there are four suspension mounts, placed symmetrically in pairs on either side. The two uppermost mounts are 2 cm below the mouth. Each mount is 3.5 cm long and formed of four thin iron wires, welded together, with a carrying ring at the end. Upon the sheath itself the four wires are divided into two strands which are bent at a right angle in opposite directions. These strands are attached to the sheet iron of the sheath at the top, in the middle and at the bottom by a rivet like those described above in connection with the grip. The two uppermost mounts are of a single form, although that to the right is less well preserved than that to the left, which lacks its central rivet. The two lower suspension mounts are located in the middle of the curved outline of the sheath. The suspension mount to the left is complete, with all its rivets and the whole surface preserved, while that to the right has lost its suspension ring. This was missing before the deposition of the item as grave goods as both the ring and the projection it was attached to were removed and the area gradually worn down. On the back of the sheath the four suspension mounts end in a flat, hammered projecting area with a small central rivet. This feature is completely absent from the modified mount referred to above, corroborating the idea that the suspension ring and parts of this mount were removed while the dagger was still in use. In connection with this it is interesting that although the majority of sheaths have the same method of suspension as that from Hedegård, i.e. four symmetrically placed suspension mounts along the sides, normally only the two uppermost ones are used (Morel & Bosman 1989, 183).

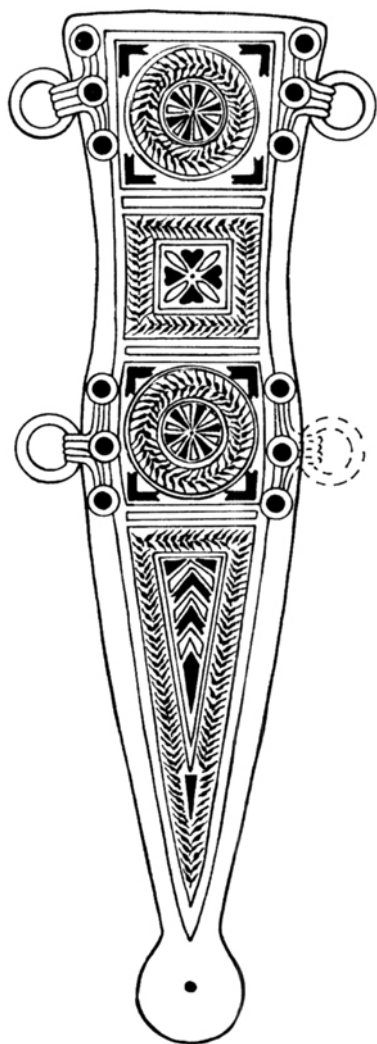


Fig. 24. Sketch of the ornamentation on the dagger sheath from grave A4103 (1:2). Drawing Lizzi Nielsen.

The sides of the sheath follow a curved outline which ends at the bottom in a circular chape. This chape is 2.4 cm in diameter and undecorated. Apart from the chape and a small part of the end of the sheath, the decoration on the front side of the sheath is largely intact. This is virtually surface-covering decoration, divided into four fields, of which the uppermost and the third fields are practically identical. All the decoration is formed by inlay. The metal which was hammered down as an inlay has kindly been examined by civ. ing. Arne Jouttijärvi, whose analyses

are the basis of the account presented here. It must be noted, however, that the results of the metallurgical study are uncertain as the dagger was affected by heat both in antiquity and during conservation, and this may have affected the chemical composition of some of the materials.

The four fields of decoration are framed by a rather broad groove inlaid with an alloy of tin and bronze with a high admixture of silver, giving the alloy a brass-like colour. In the two almost identical patterns the brass frame encloses a rosette which is surrounded at all four corners beside the frame by an angular cavity. Analyses of the material in these angles have produced no secure results, but to judge by their form it is likely that the inlay here was enamel. Inside of the angles there is a rosette surrounded by a copper alloy. Within this there is a leaf border with a completely black fill, probably niello but which as a result of the effects of heat has been converted into metallic silver. In the sample from the sheath there was 75% silver and 13% copper. This is probably the remains of niello, as that would provide the greatest contrast to the otherwise blank "silver-like" surface of the iron sheath. Inside this leaf border there is a leaf pattern in which every second leaf has been inlaid with a bronze that was redder than the brassy-yellow inlay of the surrounding frame. The alternative leaves are empty. They presumably originally carried enamel.

Thus the decoration of the uppermost and the central fields. The second field from the top is slightly different. The frame around the field and the internal niello border are the same, but here are square in shape and there is a pattern consisting of four confronted, diagonally placed pointed-oval cavities inside the niello border. Between these cavities there are four identical hearts, meeting at their points. There are traces of bronze within the ovals and the hearts presumably carried enamel inlay.

The decorative field at the bottom is triangular and somewhat damaged towards the chape. There was originally decoration here, and we have to assume that the outermost decorative strip ended in a point alongside the circular chape. The frame here too consists of a brassy-yellow bronze, again with the black niello border on its inside, now describing a triangle. Inside this there is chevron pattern made up of angled, engraved fields which carried a reddish bronze-

alloy or enamel inlay alternatively, beginning at the top with enamel. It is not known whether or not the chape was decorated. It may have been entirely blank, but could also have been decorated with a silver or bronze/brass disc.

The analyses have unfortunately not been able to provide information about the colour of the enamel inlay which undoubtedly adorned the rivet heads and large parts of the pattern on both the dagger and its sheath. From other, comparable finds, red is particularly familiar, although there is also one example of green as well, which may well have been the case here (Thomas 1971, 48).

Complete *pugiones* are known in only a small number of cases from the Roman area within Europe. Only 70 more or less complete decorated sheaths, with or without their daggers, are known and some 60 complete daggers (Scott 1985, 160). If we add to these fragments of grips, blades and sheaths the number grows somewhat to 196 pieces (Thiel & Zanier 1994, 60), but given the size of the Roman Empire and the considerations discussed below, this remains a very rare ancient artefact.

Outside the Roman Empire *pugiones* are even less common. In fact only three specimens have been found north of the Empire. Only the area of the Continent north of the limits of the Roman Empire is included here. Apart from the three *pugiones* noted in the text, the other examples found north of the Rhine or the Danube come from Roman camps or sites related to them. Only two of the daggers, Hedegård and Ilischen, are from Germanic features (graves). One example comes from a Germanic grave from Ilischken near Kaliningrad in what is now Russian territory (Nowakowski 1983, 80), another was found in Ocnita in Romania (Thiel & Zanier 1994, no.138), and the third is the Hedegård find. The remainder are all from the Empire, especially along the Limes (Thiel & Zanier 1994, Abb. 5-6).

Inside the Roman Empire the number of finds is strikingly low when one considers that the *pugio* was an integral part of a Roman legionary's equipment. Some scholars believe, partly on the basis of studies of military graves, that auxiliary soldiers also carried the *pugio*. This should mean that there were always at least 150,000 such daggers in use in the Roman army (Scott 1985, 181 no.1). Not all of these would have

had decorated sheaths. Most specialists agree that these, even at the time of use, were rare in the Roman area, and that relatively few sheaths of this type were made. This effectively means that these de luxe weapons were possessed only by relatively few, distinctly high-ranking officers who had been given the daggers as a reward for long service or something similar, rather like medals of later times (Morel & Bosman 1989, 187).

The Roman army only used *pugiones* in decorated sheet-metal sheaths in the 1st century A.D. In this period the type underwent a series of changes. The earliest daggers are those of the Dunaföldvar Type (Thomas 1971, 52; Scott 1985, 176) with side plates around the central grip plate, rivet holes in the shoulder of the blade to fasten the hilt and a curved blade with a central rib between blood furrows. This was followed by another type with a much more simple grip tang, no rivet holes and a narrower and straight-sided blade (Scott 1985, 164).

The associated decorated sheet-iron sheaths change too. The earliest match the Hedegård example very closely, with the inlays consisting of brass, bronze, silver/niello and red or green enamel, and the curved outline of the dagger mirrored by the sheath. The pattern on the sheath is divided into four fields comprising rosettes, chevrons, hearts and ribs of various kinds. The inlays used later change, with enamel disappearing and the brass and bronze being partly superseded by silver. The motifs also change, through temples, lilies etc, to more abstract patterns in which the division into fields so characteristic of the earlier sheaths is completely lost (Thomas 1971, Taf.LXXX; Scott 1985, 165ff.).

None of the sheaths found so far are obviously identical. The sheath which is immediately most similar to the Hedegård example is from Dunaföldvar, a dagger that was unearthed in the Danube a little south of Budapest in 1967 (Thomas 1971, 47ff.). Although there are many similarities, the Dunaföldvar dagger does not have the hearts in field 2, a motif which is, however, also found on a dagger from the Abte Ladin valley in the southern Tyrol (Thomas 1971, Taf.LXXVI:2). The other daggers of what is known as the Dunaföldvar Type also carry motifs and other features resembling the sheath from Hedegård (Thomas 1971, Tafn.LXIX-LXXX).

Within the Roman Empire the Dunaföldvár Type is dated relatively early, but there is some disagreement over exactly how early. Scott, for instance, considers that the distribution of the type along the Danube and the Rhine means that it should be dated to within the first twenty years of the Christian Era (Scott 1985, 170). According to Scott, the daggers came into use in the decade following the birth of Christ amongst the Roman legionaries on the Danube border in Noricum and Illyria. The production of these early daggers presumably took place in what is now northern Italy and Austria with the then famed trading town of Aquilaia as the centre for their distribution. The presence of the type in the Rhine area is connected by Scott directly with the disaster that befell the Romans in 9 A.D. The three legions that were annihilated in the Battle of Teutoburg were in fact replaced in the same year by three legions from the Roman provinces of Illyria and Noricum (That Roman legionaries used the *pugio* in the West Germanic provinces before or in the year 9 A.D. is shown by, *inter alia*, the fact that a fragment of a *pugio* is included in the Kalkriese find (Franzius 1997, 78)).

Other scholars, such as Thomas and Zanier, date the daggers a little later, namely to the middle third of the 1st century (i.e. 30-60 A.D.) (Thomas 1971, Taf. LXXX; pers. comm. W. Zanier).

The Hedegård dagger can thus with some care be dated to the Early Roman Iron Age, possibly close to the year 9 AD. and scarcely later than about the year 50 AD., and thus clearly in Period B1 of the Early Roman Iron Age – a dating which is also supported by the other finds in the grave. This dating also accords very well with the bronze vessel, a type which, however, was also a long-lived one, and which therefore could just as well come from the second half of the 1st century.

DISCUSSION

The four graves just described can all be dated to the earlier phase of the cemetery's use. In the case of A1086, the fibulae indicate a date in Period IIIb of the pre-Roman Iron Age. The same dating is implied for graves A1131 and A1136 by the bronze vessel-types and the straight-walled beaker. In the case of A1131 a dating to the very beginning of the Early Roman Iron

Age cannot be absolutely excluded. On the evidence of the dagger, A4103 is of the Early Roman Iron Age.

The three late pre-Roman Iron-age import graves can be aligned with a very small group of early graves from Denmark with imported Roman bronze vessels in terms of their type and richness. These are the graves from Langå, south-western Fyn (Albrectsen 1954, 29), Kraghede (Klindt-Jensen 1949, 201) and Try Skole (Becker 1958, 54) in Vendsyssel, and Simblegård on Bornholm (Bjørnvad 1989, 7). The wagon grave from Husby near Flensborg also belongs to this set of burials (Raddatz 1967).

Although the import graves at Hedegård – A4103 excepted – are broadly contemporary with these graves and belong to the same high social sphere, there remain certain clear differences between them. The late pre-Roman Iron-age Hedegård graves lack the traditional weapons (spear, shield and sword) which have otherwise been emphasized as typical of such early Germanic import graves (Hedeager 1990, 120). In respect of the other grave goods, the import graves are also very varied with virtually the only similarities being that they contain artefacts that are extremely rare, in so far as other grave assemblages can tell us, and required a lot of material and material of exceptional artistic quality: artefacts which manifestly distanced these individuals from their fellow-villagers buried alongside them.

Weapon graves

While the amount of traditional weaponry in the four rich import graves is very small, such items are found in quantity in the surrounding graves. Only the earlier graves, the cremations from Periods IIIb and B1, contain weapons. About a quarter of these graves are weapon graves, a very high proportion compared with the "normal" picture for the area of Jutland and Fyn. In the Early Roman Iron Age, for instance, only 7% of the graves in the old *amter* of Skanderborg and Århus are weapon graves. On Fyn in this period there are weapons in 8.9% of the graves and in one German cemetery, Hamfelde, there is weaponry in 6% of the graves (Madsen 1984, 92ff.; Hedeager 1990, 114). One should also note that the frequency of weapon graves varies enormously, governed both by chronological and regional factors although method-



Fig. 25. Hilt of the La Tène sword from grave A1187 (1:1).
Drawing Pernille Kristensen.

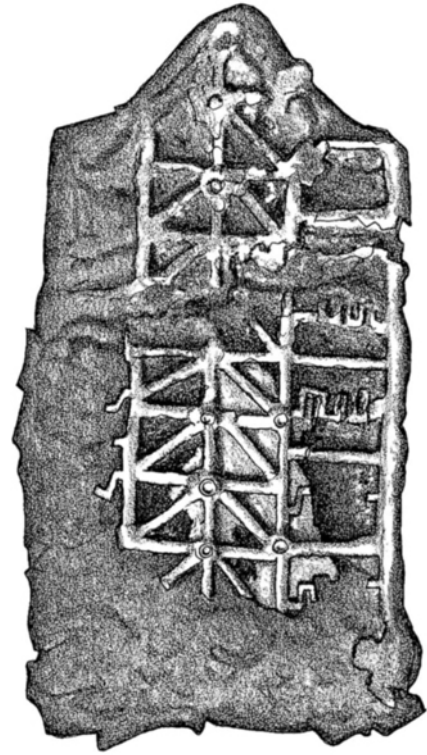


Fig. 26 Iron sword with "Opus Interassile" of bronze from
grave A907 (1:1). Drawing Pernille Kristensen.

ological factors are also relevant: e.g. whether all the graves from a cemetery have been examined, or whether some of the isolated weapon graves in an area actually come from larger but not as yet fully investigated sites. The weapon-grave frequencies cited here must also be taken with one further, important qualification, namely that the late pre-Roman Iron-age graves are not included, while these, especially if they lack metal artefacts such as weaponry or brooches, may be difficult to distinguish from Early Roman Iron-age graves. The number of weapons grave could thus be either higher or lower in the late pre-Roman Iron Age than in the Early Roman Iron Age.

Most of the weapon graves at Hedegård contained a full weapon-set of spear, sword and shield, thus distinguishing them from the weapon-grave milieu as hitherto described (Bjørnvad 1989, 19; Hedeager 1990, 117). Two-edged La Tène swords are predomi-

nant amongst the swords (Fig. 25). We shall not discuss here which of these are imported and which are local reproductions, but it can simply be noted that many of them appear to be imported items if one uses the length and the form of the sheath as determinative criteria. One of the swords, for instance, is in an iron sheath with openwork in bronze at the mouth (Fig. 26) – an example of what is known as *Opus Interassile*, which is usually found in Noricum (Werner 1977, 367ff.).

In the present report, just one of the weapon graves will be described in detail, cremation patch A 4137 (Fig. 27). This grave contained, *inter alia*, an iron ring mail-shirt, a one-edged sword, two long knives with winged socket 42 cm long, a spearhead, two ring brooches and a number of mounts which probably belong to the mail-shirt. The deceased appears to have been cremated in his mail-shirt which was then buried, partly folded up and partly cut up. The rings of which the mail was made are incredibly fine (Fig. 28). Each ring, measuring only about 5 mm in diameter, is made of iron wire 0.9-1.0 mm thick. The mail-shirt consisted of tight rows of rings of which each alternative row consists of rings fastened with a rivet or whole rings respectively. Each ring interconnects with four others. The total weight of the mail-shirt is now 10.36 kg. This weight also includes a small amount of burnt bone, charcoal, etc, which is rusted fast on to the remains of the mail-shirt. In Denmark otherwise, pre-Roman mail-shirts are known only from the Hjortspring find, where the excavator saw traces of at least 20-24 examples (Rosenberg 1937, 47), and possibly a loose find from Kastentov in Hellum parish, North Jutland. This mail-shirt is undated, but technically, in size and chemical composition, it fully matches the Hedegård mail-shirt and could even come from the same workshop. In relation to the later, and better known, Late Roman Iron-age mail-shirts from, for instance, Brokær, Vimose and Thorsbjerg, the rings of the Hedegård mail-shirt are somewhat smaller in diameter (Jouttijärvi 1995, 102). It also differs from those examples by having the rivets which every second ring is fastened with considerably longer, thus making the mail-shirt very tight.

As of yet the Hedegård mail-shirt is the earliest known securely dated, grave find of a mail-shirt in Denmark. Provisional analyses of the iron in the rings

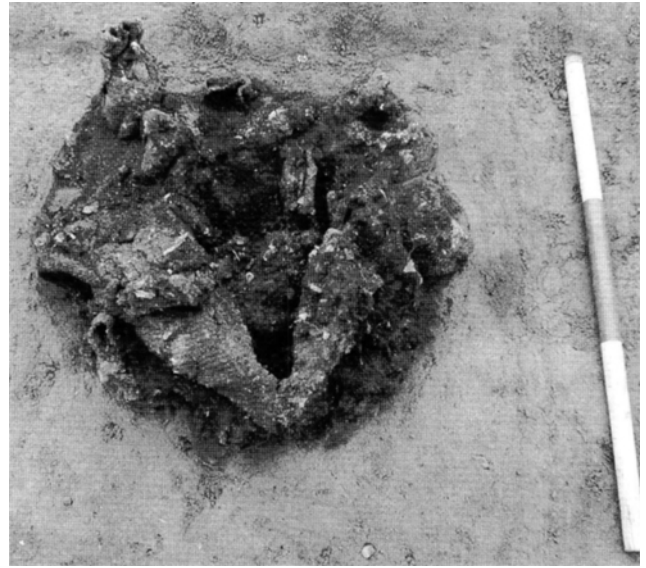


Fig 27. Cremation patch A4137 with the chain mail exposed.

indicate that it was made either in central or in western Jutland (possibly at Hedegård itself) or in northern Germany/Poland, and thus is not, as one might have thought, Celtic work.

Graves with tools

At least three graves in the Hedegård cemetery contain tools, although the total will probably grow when all of the grave assemblages have been more meticulously examined. In urn-grave A271 four small iron objects were found with almost chisel-like edges at one end and a hole with a clamped termination at the other (Fig. 29). These may be graving tools for fine engraving of metal (Lønborg 1992, 80). The whetstone which the graving tools were sharpened on is also in the grave group. So too was an awl and a couple of unidentifiable iron fragments. In another cremation grave (A1187) there were two small gouges or spoon bits with a narrow and a wide edge respectively, together with a tool with a double, angled, chisel-like edge, possibly a turning tool and an awl (Fig. 30). In addition to these small tools the grave contained a La Tène sword, a large knife with winged socket, a small knife, pieces of a shield boss, the sock-

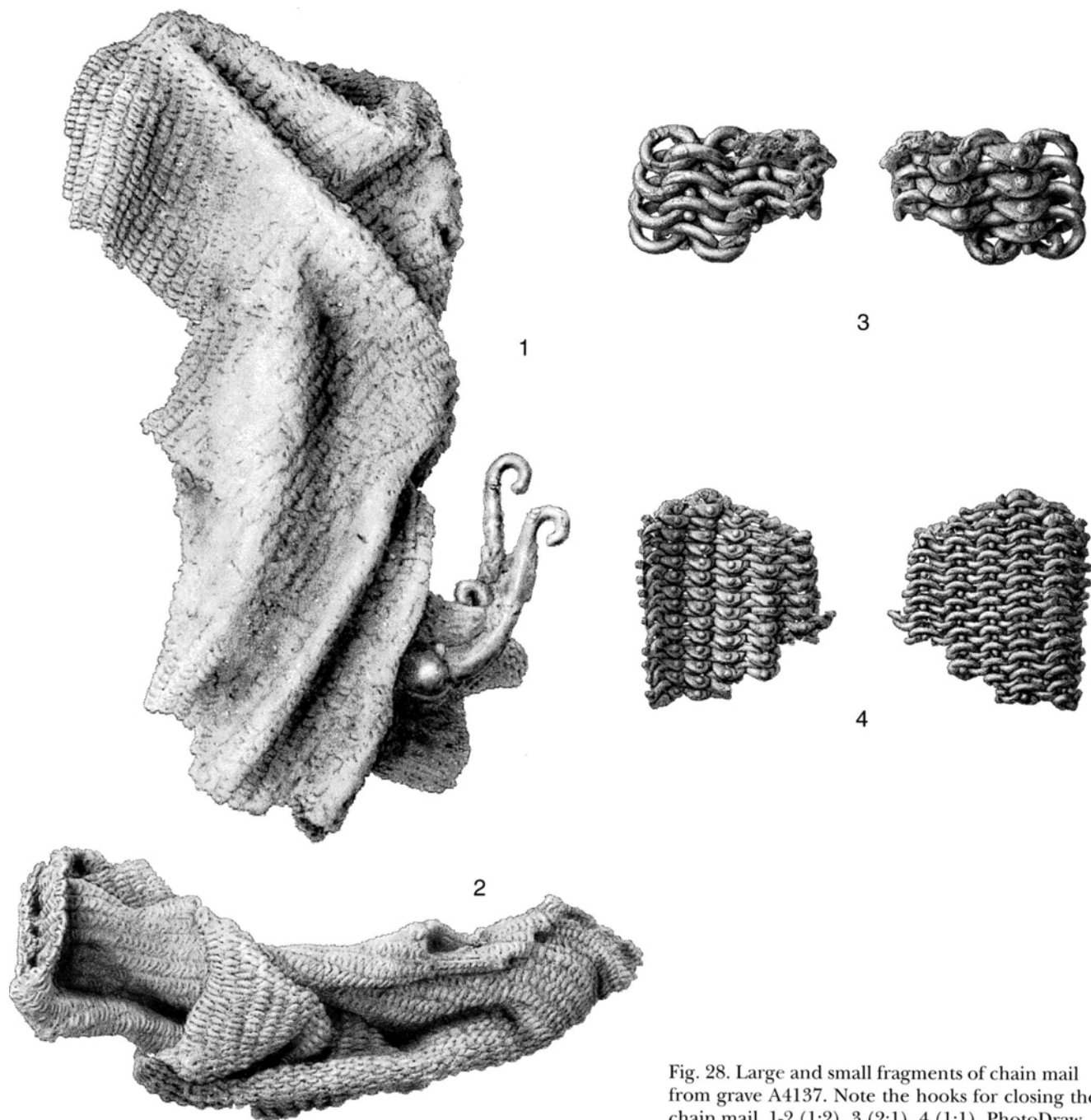


Fig. 28. Large and small fragments of chain mail from grave A4137. Note the hooks for closing the chain mail, 1-2 (1:2), 3 (2:1), 4 (1:1). PhotoDraw Steen Hendriksen.

et from a spearhead, an iron brooch, and potsherds from several vessels. The gouges, the “turning tool” and the awl were probably used for fine woodwork.

The last grave to be noted here is grave A874 with a full weapon-set and an object looking like a pair of

tongs (Fig. 31). These tongs are very fine, with the two arms bent slightly backwards. As of yet it is not certain that this was their original form.

It is anticipated that more small tools will be discovered during the future study of the graves.

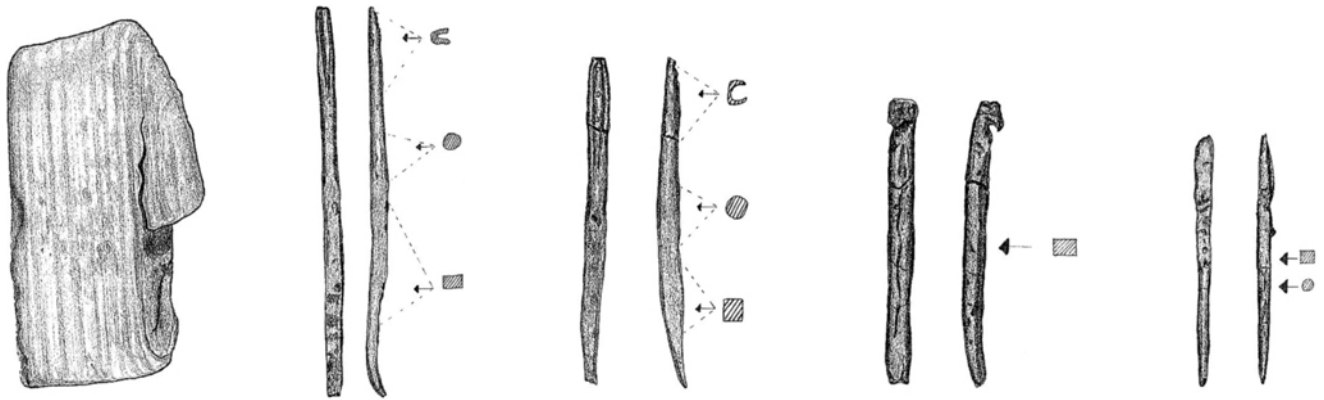


Fig. 29. Whetstone, three of the tools with a chisel-like edge and the awl from grave A271 (1:2). Drawing Lizzi Nielsen.

Graves containing small tools are an extreme rarity in the Iron Age. From the late pre-Roman and Early Roman Iron Age only a few smiths' graves with hammers and tongs are known. These graves are concentrated in the same local group as Hedegård, in the western part of the former Skanderborg *amt* (Levinsen 1984, 202). No standard smiths' graves have been found at Hedegård.

Graves containing tools show that the craft practised by the deceased during his life was of considerable importance in respect of status and so should also be marked in the grave. Whether or not this also indicates that the deceased were specialized craftsmen is another matter.

The foreign streak

In the import graves the foreign material is conspicuous and unambiguous. However many of the other graves at Hedegård also bear signs of foreign influence. The four extremely rich individuals thus appear to have had some impact on those around them, in terms of both wealth and external contacts. This foreign streak can be found both in the artefacts and in the more ideological sphere. It is a matter of diverse contacts, with the Romans and the Celts, and, more locally, with other Germanic "tribes". The bronze vessels from the Roman area have already been noted. To these we can add the *pugio*, possibly the ferrule, and certainly the glass beads. The numerous La Tène swords presumably come from the Celtic area, and

one very long spearhead (61 cm) and the long knives in A 1136 seem very probably also to come from this source. There are also signs of contact with closer Germanic areas. The evidence for this includes a bronze fibula with long false spirals (Madsen 1987, 328). Similar "T-fibulae" are known from Vendsyssel in Period IIIa, although there they are of iron (Bech 1975, 82), and are not, as the Hedegård piece is, attached to a developed K-fibula. The long false spirals of this fibula are rather typical of Gotland. The massive cast bronze belt and the zoomorphic handle ought also to be viewed as signs of internal Germanic

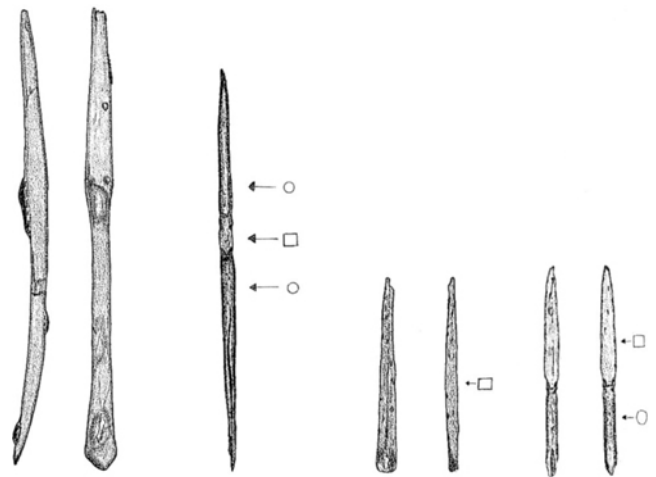


Fig. 30. Turning tool, two gouges and an awl from grave A1187 (1:2). Drawing Lizzi Nielsen.

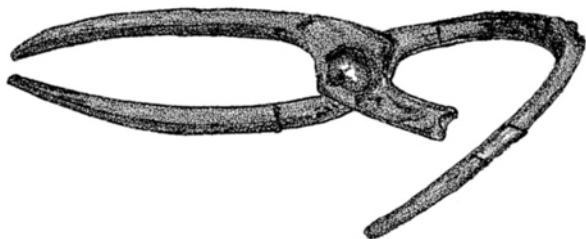


Fig. 31. The tongs from grave A874 (1:1). Drawing Lizzi Nielsen.

contacts reflecting Celtic craft influence. On the evidence of the iron analysis, the mail-shirt apparently points in the same direction. Typologically, however, it is unquestionably Celtic.

The network of contacts was thus both large and diverse, as will probably appear all the more clearly when all of the graves have been studied in greater detail.

The boat grave

Very close to the northern limit of the cemetery, a feature 4.65 m long and 0.6 m wide running east-west (A 3725) was found in 1991, with the sherds of a small pot at the western end and a small handled vessel at the eastern end (Fig. 32). The fill of this feature was highly reminiscent of the slightly loamy natural soil that is usually found in the inhumation graves at Hedegård, although in comparison with these this feature was excessively long and narrow. A few centimetres down into the feature, however, the explanation was found. This feature was in fact a boat grave: the first and so far the only one at Hedegård, and the earliest in Denmark apart from on Bornholm.

The form of the boat can be largely reconstructed from its impression. Since the boat was preserved only in the form of an impression, it posed seriously problems in respect of excavation technique. Via cand.phil. Jørgen Dencker a message was passed to Ole Crumlin-Pedersen, Skibshistorisk Laboratorium, who had both excavated several of the boat burials at Slusegård and had just published the boat graves of that cemetery. The boat grave was then excavated according to his directions. The boat was excavated in

perfectly horizontal spits which were drawn at the scale of 1:10 at every 2 cm level. Near the bottom of the boat the technique was modified to leave a section in the middle of the boat in order to reveal, if possible, any keel or the like. There was none present. The method of excavation meant that the form of the boat can now largely be reconstructed. It is what is known as an extended log boat, 3.65 m long at the gunwales and now 0.6 m wide (Fig. 33). The massive stem post was almost beak-shaped. The stern post was less easy to follow as part of the grave goods – a black-burnished bowl – was unluckily placed in such a way here as to obscure the form of the boat. To make a guess on the basis of the few sections that could be seen, it appears likely that the stern post was rounded. The side of the boat, the gunwale, was 1-2 centimetres thick.

The grave goods in the boat were relatively sparse (Fig. 33). In addition to the two pots placed on top of the grave at either end of the boat the small bowl was found at the stern, as mentioned, while a dish was found in the bows with a bowl lying on its side immediately in front of it, right up in the curve of the prow. Roughly in the middle of the boat there was finally a small, curved iron knife with the remains of a wooden haft. Altogether this was a rather humble assemblage, which cannot be more closely dated than to the Early Roman Iron Age. Since, however, this is an inhumation grave, and such graves at Hedegård date to Period B2, the boat grave is presumably also to be assigned to this period.

In the bottom of the boat, close to the prow, five absolutely identical iron clamps were found, laid in a straight row at exactly 14-cm intervals (Fig. 33). These probably represent a repair to the boat. The iron salts in the clamps had preserved some of the oak from the boat. As far as we know, this repair using iron clamps is the earliest known example of the use of iron in a boat in Scandinavia. A similar repair is known from a Swedish boat of the Early Germanic Iron Age (Humbla 1949, 11).

The Hedegård boat has its nearest parallels, both typological and chronological, at the Slusegård cemetery on Bornholm. Here the boats could be divided into three types, of which the Hedegård boat clearly belongs with the extended log boats of size-group 1: the short type, with the form of the prow most like type 6 (Crumlin-Pedersen 1991, 168, 171, Fig. 91:6).

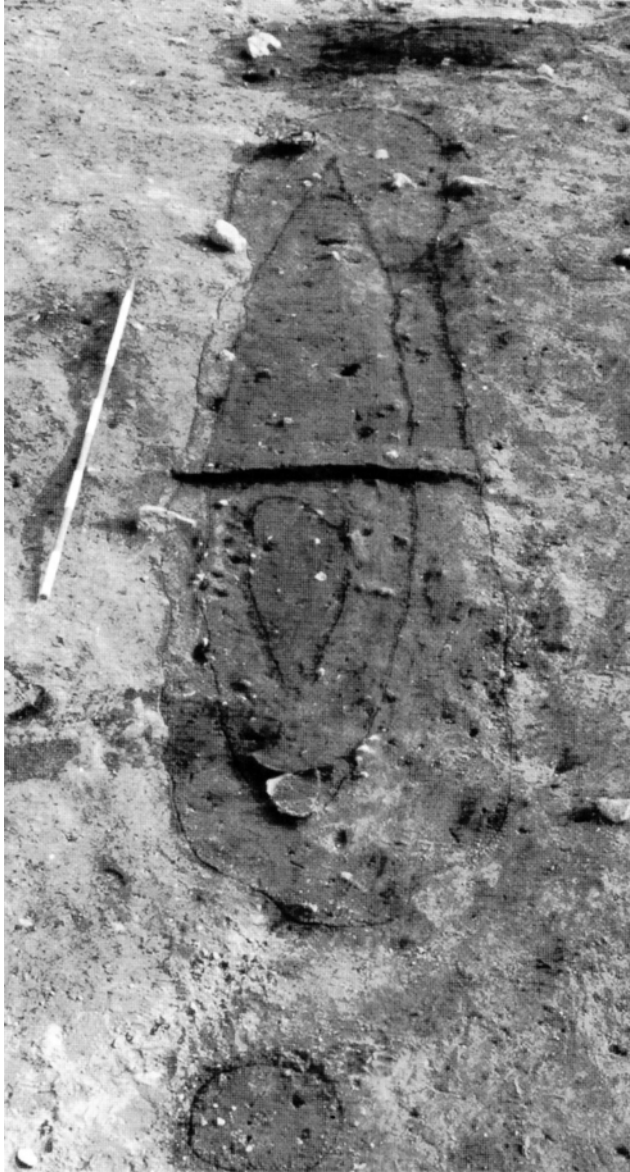


Fig. 32. Boat grave A3725 seen from the west during excavation. The outline of the boat in the surrounding fill has been highlighted.

There was no trace of struts in the Hedegård boat, but, as in the Bornholm boats, these were probably removed before the boat was used as a coffin.

The similarity with the boat graves of Bornholm is, therefore, striking, and the greatest difference, apart from the iron clamps, is that the Hedegård boat grave was aligned east-west with the prow to the east while those on Bornholm were most commonly aligned north-south (Crumlin-Pedersen 1991, 206). This can probably be explained in terms of the general differences between the two areas in terms of the normal orientation of inhumation graves.

The Hedegård boat grave is, as noted, the earliest and as yet the only Early Roman Iron-age boat grave in Denmark west of Bornholm. Two other boat graves are known from Jutland, the prow of an extended log boat from Foulum near Viborg and a clinker-built boat from Brokjær near Ribe. The Foulum grave is dated to the Early Germanic Iron Age and the Brokjær one to the transition between the Late Roman and Early Germanic Iron Age (Crumlin-Pedersen 1991, 232ff.).

The Slusegård boat graves are interpreted by Crumlin-Pedersen as the burials of an especially powerful priesthood (Crumlin-Pedersen 1991, 221). This is not the place to discuss this proposition in detail, nor can a single boat grave from Hedegård make any fundamental contribution to the question. The Hedegård boat grave is, however, an extremely important ele-

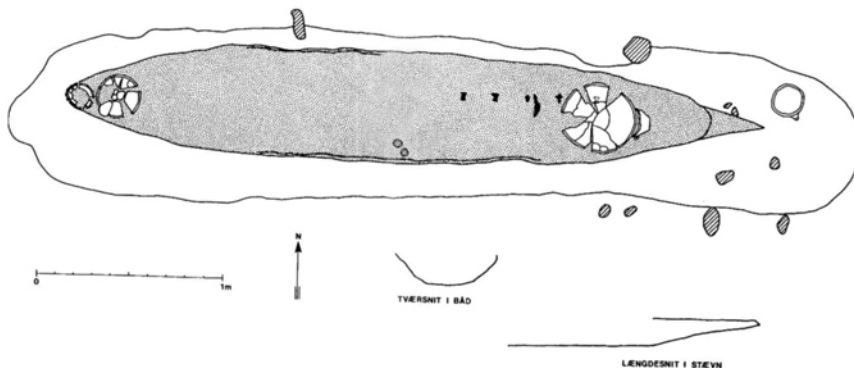


Fig. 33. Plan of grave A3725 showing the cross-section and bow profile of the boat. The boat impression has been emphasised by shading (half tone), iron artefacts are drawn in with black while the pottery vessels have been left untouched. Drawing Ina Holst.

ment of the cemetery as it is an example of the site's extensive and diverse cultural connections, which comprised not only material but also ideas.

The subsequent development of the complex

The Hedegård cemetery seems to have been founded with the rich horizon containing the Roman imports, the large quantities of weaponry, the tools and the generally rich international connexions. After this phase the wealth diminishes. This may, of course be due to the site losing some of its importance, but there may also be another explanation. An old find may shed some light on the matter.

In 1860, one or two sets of horse harness were unprofessionally excavated in the barrow Storhøjen, Rønslunde, at the farm of Højgård only about 800 m east of the Hedegård cemetery (Fig. 1) (Klindt-Jensen 1949, 80ff.; Ørsnes 1993, 192). Storhøjen is now protected, with a massive cavity in its centre. The excavation of the finds was an unscholarly undertaking and it is reported that the harness lay between the top and the base in the eastern side of the barrow to the south of two horse's skeletons that were buried here, side by side, both of them with their head turned to the north. No human grave was found. Its absence is striking, and rather improbable when this is compared with other similar finds. Five graves with horse-harness mounts of the Early Roman Iron Age are known. In all of these cases the horse gear is an element of very rich grave finds which, to judge by the other grave goods, are often women's graves (Hedeager & Kristiansen 1984, 182; Madsen 1984, 136ff.). In light of the other Danish finds there ought to have been a grave in Storhøjen too, and the possibility that one was missed in 1860 has to be considered a real one. The horse harness from Storhøjen may also indicate that there is a cemetery of the Early Roman Iron Age in this area. A Late Roman Iron-age inhumation grave was excavated in the nearby Højgård cemetery (NM j.nr. 86/55, C 27026-27028), and surface finds of glass beads, a bronze ring and sherds show that there are one or more Iron-age sites in the area. In 1989 a trial excavation was conducted south of Højgård after the terminal of a cruciform brooch was found here. Rather unexpectedly, a small-barrow cemetery of pre-Roman Iron Age Period I was discovered (AUD 1989,

178 no. 331). Even more surprising was the result of a small excavation immediately to the north of Storhøjen in 1993. In this area urn-graves of Late Bronze Age Period IV were found (AUD 1993, no. 364), while further south a sunken hut of the Late Iron Age/Viking Period was excavated in 1994 (HOM j.nr. 738). Thus both earlier and later sites are situated in the fields around the farm of Højgård, and all in all Hedegård can probably be regarded as representing a labile Iron-age community like Vorbasse (Hvass 1984). For the time being, however, these suggestions must wait upon further investigations in the area around Hedegård and Højgård.

Although only a very small segment of the Hedegård complex's settlement has been excavated, it is tempting to compare it with the fully excavated village of Hodde. At Hodde, the village was founded by the family in the chieftainly farm (Hvass 1988, 58), which thus held the central, leading position in the pattern of village movement that subsequently appears to be detectable in most Iron-age settlements. If the same were the case at Hedegård, it is possible that the chieftainly family in the village at Hedegård in or just after Period B1 moved to the area by Storhøjen, where one member of the family was eventually buried. If this were the case, there is both continuity in settlement and also a possible explanation of the decrease in wealth in the Hedegård cemetery from Period B2 onwards.

CONCLUSION

The Hedegård complex provides new information about several aspects of social organisation in the Early Iron Age. The combination of a contemporary village and cemetery is, despite the large amount of Iron Age evidence from practically every corner of the country, still relatively rare. It is clear that the presence of both types of site provides optimal scope for the direct comparison of the cemetery structure with that of the village, and thence to tease out information about both the structure of the settlement and the organisation of the community in this period of the Iron Age.

Although only small trial excavations have been carried out in the village area at Hedegård, these have

provided vital information. As of yet, Hedegård is the largest known settlement of the late pre-Roman and Early Roman Iron Age in Denmark. The village was surrounded by heavy, post-set fences which, in addition to marking the bounds of the village, probably also had some protective function. The culture layers and the many traces of ironworking, together with the craftsmen's graves, indicate that iron-production, if not craft in general, played a central role in the economy of this settlement, and thus also, presumably, in the wealth and power of the leading individuals. As the tools were included on an equal basis with other artefacts in the graves, and thus were attributed with equally high symbolic value in the funerary ritual as, for instance, weaponry, it is evident that craft played a central role in the marking of personal status. The analyses of the mail-shirt show that it could have been made at Hedegård. So specialised and complicated a piece of handicraft as this must have been made by an extremely well-trained smith. In the marsh settlement of Feddersen Wierde, admittedly from a slightly later period, it can be seen how the different crafts were directly associated with the chieftainly farm of the village (Haarnagel 1979, 305; 1983, 79ff.). Here, then, there was a relationship of social dependency, possibly a form of servile relationship, between the leader/chieftain of the village and the craftsmen. It is not yet known whether this was also the case at Hedegård. That the craftsmen were buried so close to the graves of the elite may suggest this. When the large number of well-furnished weapon graves are also brought into the picture, the interpretation must be that this is the burial place of a chieftainly family and some of the people who helped to create and perhaps to maintain and enhance the site's (and the leading family's) social and economic position.

Compared with other known settlements the Hedegård village can be classified as a central village (Lund 1988, 147ff.). These very large and manifestly rather rare types of settlement were the central places of the settlement pattern of their time, in respect of the economy, the leadership structure, external contacts both political and trading, and possibly innovation in a wider sense (Lund 1988, 149). As of yet, unfortunately, only one of these settlements has been fully excavated, namely the site of Hodde referred to above. Here one of the most striking char-

acteristics is the separate, fenced-off chieftainly farmstead, which is clearly different from the remaining farmsteads in the village in respect of construction, size and the number of internal divisions.

Typologically, the Hedegård village is apparently comparable with Hodde. As yet, of course, we do not know whether there was a chieftainly farmstead at Hedegård, although to judge from the graves there ought to have been one. These graves show that the central villages, in some cases at least, were the residences of the absolute leaders of society – the individuals buried with Roman bronze vessels.

Hedegård is one of the key sites for the understanding of social development in its entirety, not only in the century around the birth of Christ but throughout the first millennium A.D. The great archaeological potential of the site means that future investigations into the complex should be approached vigorously. Of fundamental importance is that the graves in the cemetery should be studied and related to the other grave finds of this period. Only then can the village study be properly taken up. The large culture layers here mean that excavations will be extremely difficult and very expensive. On the other hand these layers will probably contain information about the productivity of the settlement and thus, perhaps, the background to the many rich graves.

Translated by John Hines.

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